

# Remark Classic OMR<sup>®</sup>

*Version 4*  
User's Guide



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# Contents

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- Remark Classic OMR Overview* 1
  - 1.1 Overview .....1
  - 1.2 Optical Mark Reading Basic Concepts .....2
  - 1.3 What is Included with your Software .....5
  - 1.4 New Features in this Version .....5
  - 1.5 Technical Support .....8
- Installing Remark Classic OMR* 9
  - 2.1 Overview .....9
  - 2.2 System Requirements .....9
  - 2.3 Installing the Software .....9
  - 2.4 Uninstalling the Software .....10
  - 2.5 Running Remark Classic OMR .....11
  - 2.6 Registering the Software .....11
  - 2.7 Updating the Software .....11
- Navigating Remark Classic OMR* 13
  - 3.1 Overview .....13
  - 3.2 Remark Classic OMR Components .....13
  - 3.3 Navigation Tools .....13
  - 3.4 Using the Mouse and Keyboard .....14
    - 3.4.1 Using the Mouse .....14
    - 3.4.2 Using the Keyboard .....14
    - 3.4.3 Using Keyboard Shortcuts .....14
    - 3.4.4 Scrolling .....15
  - 3.5 Menu Items .....15
    - 3.5.1 File Menu .....16
    - 3.5.2 Edit Menu .....18
    - 3.5.3 View Menu .....20
    - 3.5.4 Tools Menu .....22
    - 3.5.5 Sheet and Region Menus .....23
    - 3.5.6 Help Menu .....24
  - 3.6 Accessing the Software Help File .....25
- Setting Up Your Scanner* 27
  - 4.1 Overview .....27
  - 4.2 OMR Scanners- General Information .....27

4.3 OMR Forms .....	27
4.3.1 Timing Marks.....	27
4.3.2 Columns .....	27
4.4 Selecting Your OMR Scanner .....	28
4.4.1 Selecting an OMR Only Scanner .....	28
4.4.2 Selecting an Image Enabled Scanner .....	31
<i>Using the Template Editor</i> .....	<b>35</b>
5.1 Overview .....	35
5.2 Creating Form Templates.....	36
5.2.1 Using the Template Editor .....	36
5.2.2 Region Types.....	36
5.2.3 Beginning the Form Template .....	37
5.2.4 Creating Regions .....	41
5.2.5 OMR (Optical Mark Recognition) Regions.....	42
5.2.5.a OMR Region Types .....	42
5.2.5.b Region Orientation .....	46
5.2.6 Defining the OMR Region .....	46
5.2.7 Linking OMR Regions .....	49
5.2.8 Creating an Input Region .....	50
5.2.9 Barcode Regions .....	51
5.3 Advanced Region Properties and Features.....	52
5.3.1 Advanced Properties: General: Include Region in Read Operation .....	53
5.3.2 Advanced Properties: General: Required Region .....	53
5.3.3 Advanced Properties: General: Question Text and Region Names .....	53
5.3.3.a Question Text .....	54
5.3.3.b Question Names.....	54
5.3.4 Advanced Properties: Analysis: Test Settings .....	55
5.3.5 Advanced Properties: Analysis: Survey Settings.....	57
5.3.6 Advanced Properties: Analysis: Analysis Respondent ID .....	57
5.3.7 Advanced Properties: Blank Responses .....	58
5.3.8 Advanced Properties: Multiple Responses .....	59
5.3.9 Advanced Properties: Respondent Trackers .....	60
5.3.10 Advanced Properties: Database Lookup.....	61
5.4 Additional Template Editor Features .....	63
5.4.1 Copy/Paste .....	63
5.4.2 Drag/Drop .....	64
5.4.3 Deleting Regions.....	64
5.4.4 Undo/Redo.....	65
5.4.5 File Properties .....	65
5.5 Saving a Form Template.....	65
5.6 Editing an Existing Form Template .....	65

---

---

<i>Scanning Forms</i>	67
6.1 Overview .....	67
6.2 Scanning Forms with an OMR Scanner.....	67
6.2.1 Opening a Form Template.....	67
6.2.2 The Remark Classic OMR Read Wizard for OMR Scanners	69
6.2.3 Scanning Using Default Settings with an OMR Scanner (Easy Scan) .....	71
6.2.4 Scanning Multiple Sheet Forms Without Page ID Marks Using an OMR Scanner.....	72
6.2.5 Scanning Multiple Sheet Forms with Page ID Marks Using an OMR Scanner.....	72
6.2.6 Reading Multiple Sheet Forms with Respondent Trackers Using an OMR Scanner .....	73
6.2.7 Using an OMR Scanner’s Select Stacker .....	74
6.2.8 Using an OMR Scanner’s Printer.....	76
6.2.9 Using Grade and Print with an OMR Scanner .....	78
6.3 Scanning Forms with an OMR/Image Scanner .....	79
6.3.1 Opening a Form Template.....	79
6.3.2 The Remark Classic OMR Read Wizard for OMR/Image Scanners .....	80
6.3.3 Scanning Using Default Settings with an OMR/Image Scanner (Easy Scan).....	85
6.3.4 Scanning Multiple Sheet Forms Without Page ID Marks Using an OMR/Image Scanner.....	85
6.3.5 Scanning Multiple Sheet Forms with Page ID Marks Using an OMR/Image Scanner.....	86
6.3.6 Scanning Multiple Sheet Forms with Respondent Trackers Using an OMR/Image Scanner .....	88
6.3.7 Using an OMR/Image Scanner’s Select Stacker.....	91
6.3.8 Using an OMR/Image Scanner’s Printer.....	95
6.3.9 Using Grade and Print with an OMR/Image Scanner .....	98
6.4 Batch Processing .....	101
6.5 Overwriting Data Records .....	103
6.6 Image Viewer.....	103
6.7 Reviewing Exceptions.....	104
6.7.1 Reviewing Exceptions by Modifying Individual Cells .....	106
6.7.2 Using Review Exceptions.....	106
6.7.2.a Using the Review Exceptions Window.....	108
6.8 Respondent Detection .....	110
6.9 Reviewing Duplicate Responses .....	111
6.10 Graph Viewer .....	112
6.11 Test Import Wizard .....	113
6.11.1 Creating Tests in ExamView .....	114
6.11.2 Exporting Tests from ExamView .....	114

---

6.11.3 Importing ExamView Files in Remark Classic OMR .....	114
6.11.4 Scanning Completed Tests .....	115
6.11.5 Grading Tests .....	116
<b>Working with Your Data</b> .....	<b>117</b>
7.1 Overview .....	117
7.2 Understanding the Data Grid .....	117
7.3 Editing the Data Grid.....	118
7.3.1 Making Grid Selections .....	118
7.3.2 Changing Cell Contents.....	118
7.3.3 Cutting, Copying, Pasting and Deleting .....	119
7.3.4 Resizing, Inserting and Deleting Rows .....	120
7.3.5 Freezing Columns and Rows .....	121
7.3.6 Using Find and Replace.....	121
7.4 Sorting Grid Columns .....	123
7.5 Spell Checker .....	123
7.6 Saving Data .....	124
7.6.1 Advanced Saving Options.....	127
7.6.2 Custom Format.....	128
7.6.3 Database Update Format .....	131
7.6.4 Save All Data .....	132
7.6.5 Save Data Builder .....	133
7.7 Printing Data.....	135
7.8 Emailing Data.....	135
7.8.1 Email Overview and Set Up .....	135
7.8.2 Using Email to Send Data Files .....	137
7.9 Send Wizard .....	138
7.10 Opening Data .....	144
7.11 Opening Scantron Score Data Files.....	147
7.12 Data Center Logging .....	148
<b>Remark Quick Stats – Data Analysis</b> .....	<b>153</b>
8.1 Overview .....	153
8.2 Tabulating Surveys with Remark Quick Stats.....	154
8.3 Grading Tests with Remark Quick Stats .....	154
<b>Remark Classic OMR Data Center Preferences</b> .....	<b>157</b>
9.1 Overview .....	157
9.2 General Preferences .....	157
9.3 File Storage Location Preferences .....	159
9.4 Custom Font Preferences .....	161
9.5 Email Preferences .....	161
9.6 Change Log.....	163
9.7 Check for Updates .....	164

---

*Understanding Error Messages* 165  
    A.1 Error Message Details .....165

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# Remark Classic OMR Overview

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## Chapter 1

Remark Classic OMR is a data collection software package that allows you to utilize paper forms and OMR scanners to collect data. The Remark Classic OMR software gives users of OMR scanners an easy solution for collecting and tabulating data.

The Remark Classic OMR software utilizes a form template for each form type. The form template contains information about the form. Filled-in forms are scanned using an OMR scanner with the corresponding form template. The software is equipped with form templates for many common standard forms. Remark Classic OMR also contains a Template Editor to allow you to create form templates for forms that are not already included in the software.

### 1.1 Overview

The Remark Classic OMR software provides an easy to use interface for people who use traditional OMR scanning systems. The Remark Classic OMR User's Guide contains all of the necessary information for using the Remark Classic OMR software on Microsoft Windows based systems.

Using the software can be broken down into the following procedures:

- **Choose an OMR form to use.** Forms can be purchased from vendors specializing in the creation of OMR forms. There are also software packages available to help you create your own OMR forms.
- **Create a form template file.** The form template tells Remark Classic OMR how to read your form. Form templates are created and/or edited in the Remark Classic OMR Template Editor. Each form you wish to process requires a form template, but the form template is a one-time setup that tells the software how to read your particular form.

**Note:** Remark Classic OMR contains pre-defined form templates for many form types. The Template Editor is used when form templates need to be created for those form types that do not have pre-defined form templates (custom forms) or to make changes to existing form templates.

- **Scan filled-in forms.** Remark Classic OMR displays the data in a spreadsheet style grid based on the form template you created. Each row of this grid corresponds to one scanned form in its entirety and each column corresponds to one question or variable on the form.
- **Save data and/or use the built-in analysis tool, Remark Quick Stats®.** Save the data to over 30 output formats, including Access, Excel, SPSS, Oracle, SQL Server, ODBC, etc. Or, use the analysis program included with the software, Remark Quick Stats, to tabulate your survey or grade your test. If you use Remark Quick Stats, you can take advantage of powerful grade results, crosstabulations, graphs, charts and more.

## 1.2 Optical Mark Reading Basic Concepts

Traditional Optical Mark Reading (OMR) involves two major components: OMR scanners and OMR forms. OMR scanners are peripheral machines attached to your computer that are made to specifically read and interpret the marks on OMR forms. OMR forms are bubble sheets that are created to precise specifications so that they can be read by an OMR scanner. These forms are used for testing, surveying or anything else that requires the collection of information.

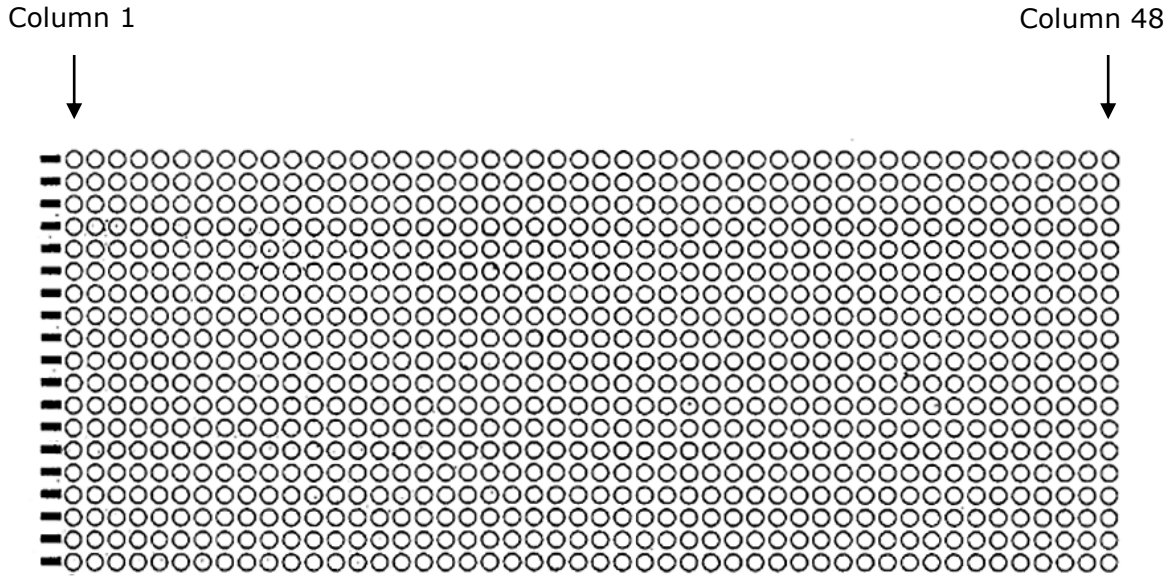
OMR forms are set up in terms of rows and columns. There are two characteristics of an OMR form that allow the OMR scanner to recognize data:

- **Timing Marks**- small, black marks that signify the vertical position of each row of data on the sheet.
- **Columns**- the number of columns (channels) that are contained on the form. Each bubble on the form lines up with a particular column. OMR scanners can typically read either 12 or 48 columns, though there are other variations. See your OMR scanner's documentation for the specifications for your model.

OMR forms can optionally have other characteristics. Here are some other terms with which you should be familiar:

- **Sheets**- the number of physical pieces of paper a form contains. For example, a double sided form on one piece of paper would contain one sheet with two sides.
- **Page ID Marks**- pre-printed sequence of marks on an OMR form that when taken together produce a unique ID for the sheet.
- **Respondent Tracker (Lithocode)**- a respondent ID that identifies a particular respondent's form as it is being read by the OMR scanner. Respondent trackers can be represented by OMR bubbles or barcodes.

The following example shows you how timing marks and columns work, followed by a sample OMR form.



This grid sample represents a fairly common 48-column form layout and allows you to count timing marks and columns on a form. Each region on a form lines up with a particular timing mark and a particular column (e.g., a region might start in row 10, represented by timing mark number 10, and column 12, represented by column 12). An OMR scanner uses the timing marks and columns on the form to locate regions containing OMR bubbles.

The form on the following page is an example of an OMR form. You can see that the timing marks run down the left side of the form. There are 64 timing marks. This form also has 48 columns. Each row or column of bubbles lines up with a particular timing mark and a particular column number.

The OMR scanner finds the OMR bubbles on the sheet using these timing marks and columns. When creating form templates in Remark Classic OMR, you also identify OMR bubbles to be processed using the timing marks and columns.

**NAME:** \_\_\_\_\_

**CLASS NUMBER:** \_\_\_\_\_

DATE			
0	0	0	0
1	1	1	1
2	2	2	2
3	3	3	3
4	4	4	4
5	5	5	5
6	6	6	6
7	7	7	7
8	8	8	8
9	9	9	9

IDENTIFICATION NUMBER									
0	1	2	3	4	5	6	7	8	9
0	1	2	3	4	5	6	7	8	9
0	1	2	3	4	5	6	7	8	9
0	1	2	3	4	5	6	7	8	9
0	1	2	3	4	5	6	7	8	9

**INSTRUCTIONS:**

Make dark marks.

Erase completely to make a change.

Do not make stray marks.

**EXAM ANSWER SHEET**

1	A	B	C	D	E	11	A	B	C	D	E	21	A	B	C	D	E	31	A	B	C	D	E	41	A	B	C	D	E
2	A	B	C	D	E	12	A	B	C	D	E	22	A	B	C	D	E	32	A	B	C	D	E	42	A	B	C	D	E
3	A	B	C	D	E	13	A	B	C	D	E	23	A	B	C	D	E	33	A	B	C	D	E	43	A	B	C	D	E
4	A	B	C	D	E	14	A	B	C	D	E	24	A	B	C	D	E	34	A	B	C	D	E	44	A	B	C	D	E
5	A	B	C	D	E	15	A	B	C	D	E	25	A	B	C	D	E	35	A	B	C	D	E	45	A	B	C	D	E
6	A	B	C	D	E	16	A	B	C	D	E	26	A	B	C	D	E	36	A	B	C	D	E	46	A	B	C	D	E
7	A	B	C	D	E	17	A	B	C	D	E	27	A	B	C	D	E	37	A	B	C	D	E	47	A	B	C	D	E
8	A	B	C	D	E	18	A	B	C	D	E	28	A	B	C	D	E	38	A	B	C	D	E	48	A	B	C	D	E
9	A	B	C	D	E	19	A	B	C	D	E	29	A	B	C	D	E	39	A	B	C	D	E	49	A	B	C	D	E
10	A	B	C	D	E	20	A	B	C	D	E	30	A	B	C	D	E	40	A	B	C	D	E	50	A	B	C	D	E
51	A	B	C	D	E	61	A	B	C	D	E	71	A	B	C	D	E	81	A	B	C	D	E	91	A	B	C	D	E
52	A	B	C	D	E	62	A	B	C	D	E	72	A	B	C	D	E	82	A	B	C	D	E	92	A	B	C	D	E
53	A	B	C	D	E	63	A	B	C	D	E	73	A	B	C	D	E	83	A	B	C	D	E	93	A	B	C	D	E
54	A	B	C	D	E	64	A	B	C	D	E	74	A	B	C	D	E	84	A	B	C	D	E	94	A	B	C	D	E
55	A	B	C	D	E	65	A	B	C	D	E	75	A	B	C	D	E	85	A	B	C	D	E	95	A	B	C	D	E
56	A	B	C	D	E	66	A	B	C	D	E	76	A	B	C	D	E	86	A	B	C	D	E	96	A	B	C	D	E
57	A	B	C	D	E	67	A	B	C	D	E	77	A	B	C	D	E	87	A	B	C	D	E	97	A	B	C	D	E
58	A	B	C	D	E	68	A	B	C	D	E	78	A	B	C	D	E	88	A	B	C	D	E	98	A	B	C	D	E
59	A	B	C	D	E	69	A	B	C	D	E	79	A	B	C	D	E	89	A	B	C	D	E	99	A	B	C	D	E
60	A	B	C	D	E	70	A	B	C	D	E	80	A	B	C	D	E	90	A	B	C	D	E	100	A	B	C	D	E

## 1.3 What is Included with your Software

Each purchase of Remark Classic OMR includes the following:

- One copy of the software on CD-ROM
- Four user's guides, all in PDF format (all files install with the software):
  - Remark Classic OMR 4 user's guide
  - Remark Quick Stats user's guide
  - Remark Classic OMR Automation Wizard user's guide
  - Remark Classic OMR Supported File Formats user's guide

## 1.4 New Features in this Version

Remark Classic OMR 4 has many new features. The following list provides an overview of what is new in this version. Please see the specific sections of this user's guide corresponding to the listed feature for complete details.

All of the new features in this version are too numerous to mention. We have highlighted some of the bigger features here. Take some time to review this manual and the software to see all of the new enhancements.

- **Support for Image Enabled Scanners.** Support for Scantron iNSIGHT scanners' imaging capabilities is available using ScanTools®. An image viewer at the bottom of the Data Center shows an image of each scanned form. As forms are scanned, images are saved of each form.
- **Email.** An email option is available in the Remark Classic OMR Data Center and Remark Quick Stats to email data and reports as attachments. You can use Remark's built-in email client in conjunction with your SMTP server or Microsoft Outlook®.
- **Send Wizard.** A Send wizard was added to move files via FTP or email with minimal interaction. You send data and reports from a folder on your computer or network to an FTP site or via email using your own SMTP server. You can set up profiles to be reused as needed.
- **Windows 7 Support.** Windows 7 is fully supported in both 32 and 64-bit versions. (Note: If your scanner requires a driver, check with the scanner manufacturer for Windows 7 compliant drivers.)
- **Microsoft Office 2010 Support.** The Access® and Excel® 2010 file formats are now supported anywhere database formats are supported (e.g., database lookup, saving data, exporting report data).
- **SQL Server and Oracle Support.** You may now save data to the SQL Server and Oracle formats without going through an ODBC connection.
- **Save Data Builder.** You can now customize the data saving process by including a region from your data set in the file name. For example, if you are processing exams and wanted the data file to be saved by instructor, you could use the instructor region from the database as the base name.
- **Save All Data.** You can save multiple data files to a master data file with the click of a button. This feature allows you to easily combine related data (data that originates from the same template).
- **Database Lookup for Multiple Pieces of Data.** You can now use the Database Lookup feature to pull more than one piece of data from your external database. This feature is great for looking up identifiers and pulling demographic

information from external files into your Remark data (e.g., looking up a student identification number and pulling in names and other demographics).

- **All Response Option for Multiple Choice Questions.** Multiple choice questions can output all responses chosen (instead of MULT) even when only one is allowed. For test grading, this makes it easy to allow different correct answers without rescanning forms.
- **Respondent Detection.** You can detect who has and has not completed your form by using Respondent Detection in conjunction with Database Lookup. Using the information from the external database, you can verify which respondents exist in the scanned data file.
- **Review Exceptions.** A Review Exceptions utility is included with the software that cycles through the open data set and searches for any data exceptions (blank responses, multiple responses, etc.). This feature is particularly useful when using an image enabled scanner. An image viewer appears at the bottom of the screen to assist with data clean up.
- **Review Duplicates.** You can review data files for duplicate entries based on a piece of data. For example, you can check for duplicate student identification numbers and then choose whether to discard duplicates.
- **Logging of Changes.** Changes to data sets can be logged in a password protected Access database.
- **SPSS File Format Enhancements:**
  - The eight character region name limit has been removed. Region names up to 64 characters are now supported when saving to the SPSS format.
  - You no longer have to set up questions that allow more than one response as Boolean regions. The software breaks apart the multiple responses into separate questions when saving to the SPSS format.
  - Numeric regions that contain missing data now use the designated missing value (e.g., -1, 99, etc.) instead of 0 when exporting to SPSS.
  - The Advanced window is now available when saving data to the SPSS format so that you can chose what regions to include and set region sizes for your data set.
- **Automation Wizard.** An Automation Wizard is included with the software that allows you to set up executable files that perform basic software functions. For example, you can choose a template to open, initiate the scanning process, save the data and run specific reports by setting up an Automation Wizard file that executes these commands.
- **Freezing Columns/Rows.** You can now freeze columns and rows in the Data Center so that when scrolling, they are always visible.
- **Auto Check for Updates.** A method for checking for software updates was added to the Help menu and program preferences.

#### **Remark Quick Stats Improvements:**

##### **New Reports:**

- **Question Mean Report.** This new survey tabulation report shows each question on the form, along with the minimum and maximum responses, mean and a bar chart of the mean.
- **Student Response Report.** This new test grading report shows a matrix of all the students and test questions, the answer chosen, and a color code to indicate whether it was the correct response. It provides fast insight into both student and question performance.

- **Demographic Grade Report.** This new version of the Comparative Grade report allows you to compare up to three regions in your data in a table format (as compared to the Demographic Comparison Report that is in hierarchical format).
- **Basic Item Analysis/Condensed Test Report.** This new report for both tests and surveys provides a condensed view of all questions on the form, response frequencies and means. For test grading, it optionally shows test score information, such as min, max, and mean scores, standard deviation, prevalent non-distractors and class performance by upper and lower percentages.

#### **Enhanced Reports:**

- **Detailed Item Analysis Report.** Cumulative and Valid Percent statistics can be turned off in the Detailed Item Analysis report for surveys.
- **Student Statistics Report.** T-Score, Z-Score, ETS Score, and Dev. IQ have been added to the Student Statistics Report (shown optionally).
- **Condensed Item Analysis Report.** Colors have been added to the bar charts on Condensed Item Analysis report to highlight the correct answer and the distractors chosen when performing test grading.
- **Test Item Statistics Report.** Several enhancements have been made to the Test Item Statistics report to make it more readable, including: renaming Benchmark P-Value to Benchmark, changing the P-value to a straight percentage, renaming Benchmark % as Percent Correct and changing the value to a straight percentage, and adding options for each of the columns to be shown/hidden.
- **Response Reports.** Response reports can now be sorted by Respondent ID or Response.

#### **General Features:**

- **Report Batch Wizard.** The Report Batch Wizard allows you to select, print and export multiple reports at one time. In addition, you can apply filters that automatically execute as the reports are run (e.g., filter the grades based on teacher). Report Batch Wizard configuration files can be set up and reused.
- **NA (Non Applicable) Answer Choices.** You may now exclude NA answer choices from your analysis reports, providing you with more accurate means and statistics. For example, if your answer choices are Strongly Agree, Agree, Neutral, Disagree, Strongly Disagree, NA: if someone chooses NA, you can have it not count in the statistics, but still be able to see how many respondents chose the NA response.
- **Scaled Scores.** The Grade Wizard supports "scaling" a score, whereby you look up grades in a table and then apply the scaled score from the external file. You can define a default scaled score lookup for the overall test and for learning objectives. Scaled scores can look up by either total score, percent score or percentile. The following grade reports support the scaled score: Student Statistics Report, Student Grade Report, Comparative Grade Report, Demographic Grade Report and Student Response Report.
- **Support for Multiple Versions of an Answer.** You can now enter various versions of an answer and have them all treated as the correct response. For example, if .25 and ¼ are both correct, using the Grade Wizard you can instruct the software to allow either answer to be considered correct.
- **Turning Off Subjective Questions Using Easy Grade.** When using Easy Grade, if a subjective question is left blank or contains non-numeric data, it is excluded from the grade operation (marked as not graded/not subjective). Otherwise, if the subjective question contains a numeric value, that value is used as the total possible subjective points for the question.

- **Blackboard Export.** The ability to export grades to Blackboard has been added. A Blackboard Building Block is available to streamline importing grades into Blackboard.
- **Screen Captures.** You may now access a screen capture utility in Remark Quick Stats to capture portions of reports (e.g., graphs to place in other applications).
- **Data Groups.** When analyzing multiple data sets together, you can enter a descriptive name for each data set. That name can then be used to filter data in Remark Quick Stats, as well as on certain reports, such as the Demographic Comparison, Comparative Grade and Comparative Item reports. This feature is useful for comparing data sets.
- **Importing and Exporting of Grade Scales:** You can now import and export grade scales for the purposes of sharing them via the Remark Quick Stats Preferences.

## 1.5 Technical Support

Please use the following guidelines for seeking technical support for Remark Classic OMR.

### Outside the U.S.

Contact your local sales agent for support.

### Within the U.S.

**NOTE:** Services no longer under warranty or covered under a support agreement may be billable.

When you have questions that are not answered by this manual or by the online Help system, call Scantron Software Support using the procedure below:

#### Procedure

- 1 Record the sequence of steps leading to the problem.
- 2 Record the text of all error messages encountered.
- 3 Have your software Serial Number available; it is displayed in the **About Remark Classic OMR** window in the **Help** menu.
- 4 Be available at the scanning system.
- 5 Call Scantron Software Support at 1-800-445-3141.



# Installing Remark Classic OMR

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## Chapter 2

### 2.1 Overview

This chapter provides system requirements, software installation instructions and starting and exiting procedures. Please consult your scanner's installation guide for specific scanner installation instructions.

### 2.2 System Requirements

The following section provides the system configuration required for running Remark Classic OMR.

- Personal computer with 1 GHz or faster processor
- Windows 32-bit and 64-bit operating systems: XP SP3, Vista SP2 and Windows 7 (Note: SP stands for "Service Pack")
  - Remark Classic OMR runs on Windows Server 2003 SP2 and Windows 2008 SP2, but please note the software is not a client/server application and is not supported in a virtual or server-based environment
- 1 GB RAM
- 1 GB free fixed disk space
- CD-ROM drive (for installation purposes)
- Screen/monitor resolution of 1024x768 or higher and at least 32-bit color
- Mouse or other pointing device
- Supported scanner
- Windows-supported printer (optional)
- PDF viewer required to view installed documentation (optional)
- Microsoft Outlook 2007 or greater can be used for email functionality; if not present an internal Remark Classic OMR email client (using your SMTP server) may be used (optional)

### 2.3 Installing the Software

You must run the Remark Classic OMR installation program in order to use the software. Install Remark Classic OMR on a fixed drive with at least 1GB of free disk space. To scan directly into Remark Classic OMR, you must install the software on the same system to which the scanner is attached. Before installing the software, make sure you are an administrator on your computer. Each single license of the software can only be installed on a single computer.

If you are upgrading to Remark Classic OMR 4 from an earlier version, do not install the software in the same directory as your previous version. Once the installation is

complete, you can copy information from your old installation that you want to use in the new version (e.g., form templates, data, etc.).

**Note:** Modified/custom form template files are not backwards compatible. Remark Classic OMR 4 converts form templates from previous versions of the software automatically. However, once a form template has been converted, it cannot be opened in a previous version of the software. Always make copies of form templates before converting them. For standard forms, templates are included with the version 4 software.

### To install Remark Classic OMR

The Remark Classic OMR CD-ROM contains an auto play feature so that when it is inserted into your CD-ROM drive, the installation begins automatically. This feature is only available if your CD-ROM drive's auto play feature is enabled. If the software installation does not automatically start, use the following instructions to install the software.

- 1 Insert the installation CD-ROM into your CD-ROM drive.
- 2 Select **Start** on the taskbar, click **Settings** and then click **Control Panel**.  
**Note:** Accessing the control panel may vary slightly based on the version of Windows you are running.
- 3 Double click **Add or Remove Programs** (or **Programs**, depending on your operating system).
- 4 Click **Install** and then follow the on-screen instructions to display the **Remark Classic OMR Installation** window.  
**Note:** The .NET 3.5 Framework is required to install Remark Classic OMR. If you do not have it installed on your system, you are prompted to install it. Once the .NET Framework installation completes, the Remark Classic OMR installation resumes normally.
- 5 Follow the on-screen instructions to complete the installation. You are prompted for a **serial number** and **authentication code**. You can find this information on a sticker on the CD case that came with your software.
- 6 Some operating systems may ask whether you wish to install the software for all users or only the person currently logged into the computer. In most cases, and especially if multiple people use this computer and need to use Remark Classic OMR on this computer, you should choose the option for "all users/anyone who uses."
- 7 When the installation completes, click the **Finish** button to close the installation program.

## 2.4 Uninstalling the Software

If you need to uninstall the software, use the Windows Control Panel|Add or Remove Programs function.

**Note:** When uninstalling the software, all program and default files are removed. Files that you created remain on the system. However, for best practices purposes, if you plan to reinstall the software, we recommend backing up any files you wish to save prior to uninstalling the software.

**To uninstall Remark Classic OMR**

- 1 Select the **Start** menu, click **Settings** and then click **Control Panel**.  
**Note:** Accessing the control panel may vary slightly based on the version of Windows you are running.
- 2 Select the **Add or Remove Programs** option (or **Programs**, depending on your operating system).
- 3 Select **Remark Classic OMR 4** from the list and then click **Remove** or **Uninstall**.
- 4 Follow the on-screen instructions to complete the uninstallation.

## 2.5 Running Remark Classic OMR

Use the following procedures to start and exit Remark Classic OMR:

**To start Remark Classic OMR**

- 1 If you chose to install a shortcut on your desktop during installation, double click this shortcut. Otherwise, select **Start** from the taskbar.
- 2 Highlight **Programs**, highlight **Remark Classic OMR 4** and then click **Remark Classic OMR Data Center**. To go directly to the Template Editor, click **Remark Classic OMR Template Editor**.

**Note:** Accessing the installed programs may vary slightly based on the version of Windows you are running.

The **About Remark Classic OMR** window displays. This informational window remains for a few seconds while the program loads. When complete, the main Remark Classic OMR window displays.

## 2.6 Registering the Software

You can register your Remark Classic OMR software from the Help menu within the software. The Register Software link takes you to the Scantron website, where you can fill out a short registration form. We encourage you to register your software so that you receive important product updates.

**To register your software**

- 1 In the Remark Classic OMR Data Center, select the **Help** menu and then click **Register Software**. You must have an active Internet connection.
- 2 The registration page of the Scantron website appears in your default web browser.
- 3 Fill in the regions requested and then click the **Submit** button.

## 2.7 Updating the Software

Remark Classic OMR periodically needs to be updated to the latest version when maintenance releases are made available. The option to Check for Updates is listed under the Help menu. If you are experiencing any problems with Remark Classic OMR, we advise checking for software updates prior to contacting Remark support. This step avoids contacting support for known issues that are already corrected within the software.

In addition, you can have the software automatically check for updates each time it starts up. To enable this feature, select **Tools|Preference|Check for Updates**. Then turn on the checkbox for **Check for updates when starting**.

The Remark Classic OMR Automatic Update collects some system configuration data in order to provide you with updates that apply to your installation. This information includes:

- Product Name
- Remark Serial Number
- Remark Authentication Code
- System Finger Print
- Software Version and Build Number

Gravic, Inc., author of the software, is committed to helping protect your privacy. Using the automatic update feature does not collect your name, address, email address, or any other form of personally identifiable information. Your Internet Protocol (IP) address is logged when you connect to the Gravic website, but this address is only used to generate aggregate statistics.

### **To check for updates manually**

- 1** Select the **Help** menu and then click **Check for Updates**. You must have an active Internet connection.

Remark Classic OMR goes out to the Gravic website and checks for an update for your product. If an update is needed, you are prompted to download and install the update. If an update is not needed, you are advised that your software is up to date.

# Navigating Remark Classic OMR

## 3.1 Overview

This chapter provides an overview of how to get around in Remark Classic OMR, including the menu items and tools available in the software. Wizards and other navigation tools are also described. Specific functions are explained in more detail in the appropriate sections of this user’s guide.

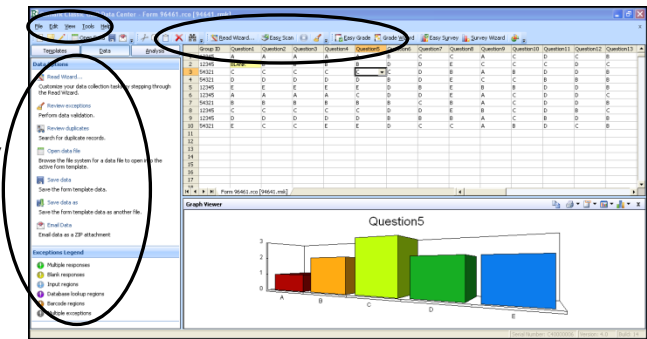
## 3.2 Remark Classic OMR Components

The Remark Classic OMR software interacts with you through three main components, which can display multiple windows. You may display many windows simultaneously, allowing you to use multiple Remark Classic OMR documents at one time.

Remark Classic OMR contains a Template Editor component, a Data Center component and a Remark Quick Stats component. The Template Editor is used to create form templates for each form you want to process in the software. The Data Center is used to process forms, clean data and save/export data. Remark Quick Stats is used to grade or tabulate processed data.

A shaded title bar designates the active or current window. Minimize documents on the desktop by clicking the minimize button located in the upper, right-hand corner of the window. Double clicking the minimized icon causes the document to become the current window.


The software contains a menu bar, a toolbar and a status bar. The toolbar displays tools that, when selected, perform the function of an option under a menu pull-down item. Shifting between different types of windows causes the menu bar and the toolbar to change. Tools and options that lack functionality in a particular window do not display or are disabled (grayed out). The status bar displays information about the active document or the selected command.

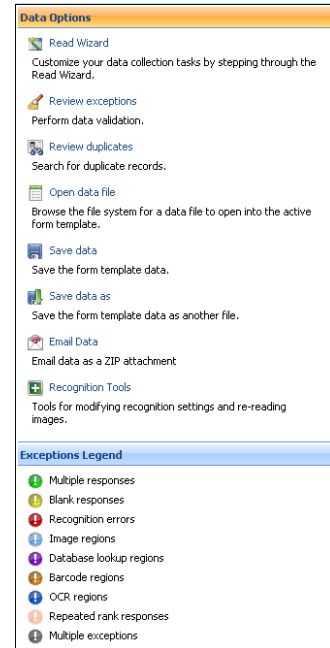


## 3.3 Navigation Tools

Remark Classic OMR includes many wizards and navigation shortcuts to help you move through the software. The left portion of the Data Center contains a Task Pane that acts as a guide to help you decide what you would like to do. Once you perform a function, this Task Pane automatically updates with new options based on the last function you performed. You may use this tool as a way to understand what options are available to you at any time. Most options displayed in the Task Pane are also available from the

menus or toolbar. If you would prefer not to use the Task Pane, you may close the window by selecting the **View** menu and disabling the option titled **Task Pane**. You may also close sections of the task pane by clicking the title bar of the section.

In some windows you will also notice an information button . When you see this button, hover the mouse over the button to view details about the current window, action, etc.



## 3.4 Using the Mouse and Keyboard

This section details the different mouse and keyboard conventions used in the Remark Classic OMR software. You can use either the mouse or the keyboard to perform functions within Remark Classic OMR. Occasionally, you might find it easier to combine the mouse and keyboard functions.

### 3.4.1 Using the Mouse

In this User's Guide, the phrase "the mouse button" refers to the left mouse button, unless otherwise stated. The following table lists the different mouse actions and their meanings:

Mouse Action	Meaning
Click	Press and release the mouse button
Double click	Press and release the mouse button twice
Right click	Press and release the right mouse button
Press	Press and hold the mouse button
Drag	Move the mouse while holding down the mouse button

### 3.4.2 Using the Keyboard

You can use the keyboard or the mouse and the keyboard to make selections and perform functions within Remark Classic OMR.

#### To use the keyboard to select objects

- 1 Press **Tab** to activate the next item in a window.
- 2 Press **Shift+Tab** to activate the previous item.

### 3.4.3 Using Keyboard Shortcuts

Most menu items and window objects provide "shortcut keys" as an alternative to using the mouse. An underlined letter in the label indicates the shortcut letter for the particular object or menu item.

#### To pull down a menu item using keyboard shortcuts

- 1 Press **Alt** + the shortcut letter of the menu item shown on the menu bar. (For example, press **Alt+F** to access the **File** menu.)

**2** Press the underlined letter of the desired item from the pull-down menu.

Many Remark Classic OMR menu pull-down options also employ “hot key” shortcuts (e.g., use **Ctrl+X** for “Cut”).

### 3.4.4 Scrolling

When you select a scrolling list, the Up/Down arrow keys, the Page Up/Page Down keys, and the Home/End keys perform the following actions:

- The arrow keys move the list up or down a line at a time.
- The Page Up/Page Down keys move up or down a “page” (window) of text at a time.
- The Home/End keys move to the top or bottom of a list.

Use scroll bars to view additional items in a list or different parts of a window. The following table explains how to use the mouse within a vertically oriented scroll bar to produce various results:

Mouse Action	Result
Click the arrow at the bottom of the scroll bar	Moves your view in the list down one line
Click the arrow at the top of the scroll bar	Moves your view in the list up one line
Drag the elevator on the scroll bar	Allows you to see various parts of the window. To drag the elevator, point to the elevator with your mouse, press the mouse button and drag the elevator along the scroll bar
Click the mouse pointer above the elevator in the scroll bar	Moves the elevator up one section
Click the mouse pointer below the elevator in the scroll bar	Moves the elevator down one section

## 3.5 Menu Items

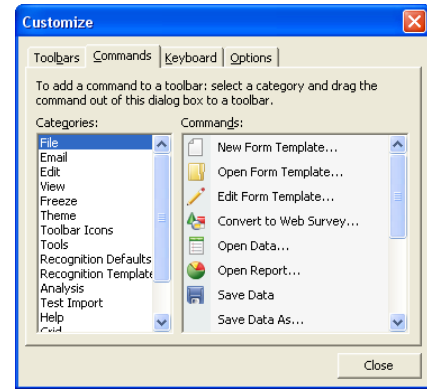
Context-sensitive help is available for all menu items by highlighting the item in question and pressing F1. The following sections provide menu options for the Remark Classic OMR Template Editor and Data Center. Menu options for Remark Quick Stats are detailed in the Remark Quick Stats User’s Guide, which you can access under Start|Programs|Remark Classic OMR 4|Documentation. Please see the corresponding sections in this user’s guide for complete descriptions of the features that can be accessed from the menus.

Most menu items can be represented on the toolbar, which is completely customizable within the Data Center (the Template Editor is not customizable). You may choose what toolbar buttons to display, whether to display them as images or text, and what text to include. You may also drag toolbars using the mouse to the desired location.

### To customize the tools displayed on the toolbar in the Data Center

- 1** Right click the toolbar and then click **Customize**.
- 2** On the **Toolbars** tab, choose the toolbars to display.

- 3 On the **Commands** tab, choose a command you wish to display and drag it to the toolbar to permanently place it on the toolbar.
- 4 On the **Keyboard** tab, review the keyboard shortcuts for various tools. You may also create new toolbar shortcuts.
- 5 On the **Options** tab, choose whether to show full menus when dropped down, reset the menu usage, display large icons, whether to show ScreenTips on toolbars, whether to show shortcut keys in the ScreenTips, and whether to use menu animation (changes how menus drop down).



**Note:** When customizing the toolbar, you can see all of available toolbar options. If you attempt to drag a button to the toolbar and subsequently do not see the item on the toolbar, this means that the item you have selected is not valid for your setup (e.g., a disabled feature).

### To modify toolbar buttons

- 1 Right click the toolbar and then click **Customize**.
- 2 Go to the toolbar and right click the button you wish to modify.
- 3 Choose the desired option from the menu.
- 4 When you are finished modifying the toolbar, click the **Close** button on the **Customize** window.



### To delete toolbar buttons

- 1 Right click the toolbar and then click **Customize**.
- 2 Go to the toolbar and right click the button you wish to remove.
- 3 Click the **Delete** option.
- 4 When you are finished modifying the toolbar, click the **Close** button on the **Customize** window.


### 3.5.1 File Menu

Use the items in the **File** menu to perform operations on files. The operations include creating, editing, opening, closing, saving, displaying, and printing the data contained in these files.




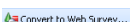


#### Template Editor:


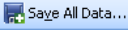



Tool	Menu Pull-Down Item	Function
	New (Ctrl + N)	Creates a new form template.
	Open... Template (Ctrl + O)	Opens an existing form template for editing.



Tool	Menu Pull-Down Item	Function
	Close (Ctrl + F4)	Closes the current form template.
	Save (Ctrl + S)	Saves the open form template to a new or existing file. Clicking the Save button creates a new form template file or save the form template to the current file if one has already been established.
	Save As (Ctrl + A)	Saves an existing form template file under a new name or allows you to change the path to which the file saves.
	Recent Files	Displays the most recently used files. Click a file to open it.
	Properties	Displays the properties for the open form template.
	Launch Remark Classic OMR	Launches the Remark Classic OMR Data Center with the current form template file open.
	Exit (Alt + F4)	Exits the Remark Classic OMR Template Editor.

**Data Center:**







Tool	Menu Pull-Down Item	Function
	New Form Template (Ctrl + N)	Launches the Remark Classic OMR Template Editor in the new template state so that you may create a new form template.
	Open Form Template (Ctrl + O)	Opens an existing form template for processing forms, opening data and running reports. Multiple form templates can be opened simultaneously, and the same form template can be opened multiple times.
	Edit Form Template (Ctrl + E)	Launches the Template Editor with the active template automatically open for editing.
	Convert to Web Survey	Converts the form template file to a Remark Web Survey file for use in the Remark Web Survey application. This option only appears if you have Remark Web Survey installed on the same computer as Remark Classic OMR.
	Open Data (Ctrl + G)	Opens an existing data file and displays the data in the current template grid window. Remark Classic OMR can read and save data in dozens of different file formats.
	Open Report (Ctrl + R)	Opens an existing report file that was saved in Remark Quick Stats.

Tool	Menu Pull-Down Item	Function
	Save Data (Ctrl + S)	Saves data from the grid to a new or existing data file. Clicking the Save button creates a new data file or save the data to the current file if one has already been established.
	Save Data As (F2)	Saves an existing data file under a new name, allows you to select an output format, or allows you to change the path to which the file saves.
	Save All Data (Ctrl + F2)	Saves all open data files to one master file, allowing you to select a file name, output format and the path to which the file saves.
	Save Data Builder (Ctrl + F3)	Launches the Data Builder, which allows you to customize the data saving process by dynamically building file names and locations using information from the active data set.
	Email	Emails the active data set using Microsoft Outlook or the built-in email program.
	Batch Wizard	Opens the batch wizard so that you can create batch files. Batch files allow you to process a header sheet with identifying information for the forms that follow.
	Print (Ctrl + P)	Prints the contents of the grid.
	Recent Files	Displays the most recently used files. Click a file to open it.
	Close (Ctrl + F4)	Closes the current data grid. If there are unsaved changes, you are prompted.
	Close All Templates and Data	Closes all open data grids. If there are unsaved changes, you are prompted.
	Exit (Alt + F4)	Exits the Remark Classic OMR Data Center.




### 3.5.2 Edit Menu







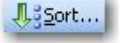
Use the items in the **Edit** menu to perform common Windows functions on one of the Remark Classic OMR documents. The operations include typical clipboard operations, such as copying and pasting information, and several data manipulation operations, such as finding & replacing.

#### Template Editor:

<b>Tool</b>	<b>Menu Pull-Down Item</b>	<b>Function</b>
	Undo (Ctrl + Z)	Undoes the most recent change to the form template.
	Redo (Ctrl + Y)	Redoes the last action to which Undo was applied.
	Cut (Ctrl + X)	Moves a selection of text or region from one place to another by cutting it from the original position and pasting it in a new position (paste is a separate command).
	Copy (Ctrl + C)	Allows for easy duplication and movement of information. You can copy a selected portion of text from a form template, or a region from one part of a form template (or a different document altogether), and paste it in a different part of the form template.
	Paste After (Ctrl + V)	Pastes information from the clipboard after the selected node in the tree view.
	Paste Before (Ctrl + B)	Pastes information from the clipboard before the selected node in the tree view.
	Delete (Delete)	Removes the highlighted information. This operation does not use the clipboard, and Remark Classic OMR retains no copy of the deleted information (except by Undo).

**Data Center:**

<b>Tool</b>	<b>Menu Pull-Down Item</b>	<b>Function</b>
	Cut (Ctrl + X)	Moves a section of text from one place to another (or to another document) by cutting it from the original position and pasting it in a new position (paste is a separate command).
	Copy (Ctrl + C)	Allows for easy duplication and movement of information. You can copy a selected portion of text from one part of a data grid (or a different document altogether), and paste it in a different part of the data grid.
	Paste (Ctrl + V)	Whenever a section of text is copied or cut, Remark Classic OMR places the contents on the clipboard. This intermediary holds the information so you can paste it (multiple times if desired) until you place something new on the clipboard (by cutting or copying something else).  Data can be copied from a document of one program and pasted to a document of another as long as the data are compatible.

Tool	Menu Pull-Down Item	Function
	Paste Special	Allows you to paste information from one cell in the data grid to multiple cells.
	Delete (Delete)	Removes the highlighted information. This operation does not use the clipboard, and Remark Classic OMR retains no copy of the deleted information.
	Insert Row (Shift + Insert)	Inserts a row into the data grid based upon the active cell. The row is added above the row containing the active cell.
	Delete Row (Shift + Delete)	Removes a row in the data grid. The row containing the active cell(s) is deleted. This operation cannot be undone.
	Find (Ctrl + F)	Displays a window asking for the search text. Remark Classic OMR searches forward from the cursor position for the text requested.
	Find Next (F3)	Searches for the next instance of the previous search. If Find has not yet been chosen, or could not locate the previous search, Find Next disables.
	Replace (Ctrl + H)	Displays the Replace text window. The search text box contains either the highlighted text or the previous search text, and the replace text contains either the previous replace text or is blank. You can replace all occurrences of the search text by clicking Replace All.
	Select All (Ctrl + A)	Highlights the entire data grid. This is equivalent to clicking the top-left corner of the grid and dragging the mouse to the bottom-right, selecting all cells in the process.
	Sort	Allows the sorting of data in ascending or descending patterns based on particular regions.

### 3.5.3 View Menu



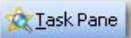
The **View** menu allows you to choose which toolbars you would like to display and allows you to customize the current view.

#### Template Editor:

Tool	Menu Pull-Down Item	Function
	Toolbar	Displays the toolbar buttons that are used as shortcuts to perform functions (e.g., open, save, etc.)

<b>Tool</b>	<b>Menu Pull-Down Item</b>	<b>Function</b>
	Status Bar	Displays the status bar, which is the horizontal bar located at the bottom of a window that displays pertinent information about application processes or the currently selected item.
	Read Direction	Displays the arrows representing the direction in which forms are read by an OMR scanner and acts as a guide when creating regions on your form template.






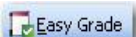

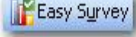
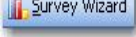


**Data Center:**

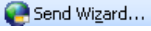




	<b>Menu Pull-Down Item</b>	<b>Function</b>
	Image Viewer	Displays the Image Viewer in the Data Center to show images of forms as they are scanned or when clicking in a cell. This option is only available when using an image-enabled scanner.
	Graph Viewer	Displays the Graph Viewer in the Data Center to show a graph of data as forms are processed or when clicking in a cell.
	Task Pane	Displays the Task Pane in the left side of the Data Center, which provides shortcuts to frequently used functions (e.g., open, save, etc.). The Task Pane updates with appropriate tasks as you perform certain functions in the software.
	Flag Legend	Displays the legend explaining each type of exception flag and its associated flag color.
	Freeze Rows	Freezes grid row(s) so that if you scroll in the data grid, the frozen rows still appear.
	Unfreeze Rows	Unfreezes any row(s) to which you applied the Freeze Rows property.
	Freeze Columns	Freezes the grid column(s) so that if you scroll in the data grid, the frozen columns still appear.
	Unfreeze Columns	Unfreezes any column(s) to which you applied the Freeze Columns property.
	Theme	Allows you to choose a theme for the software, which defines colors, fonts, title bars, etc. You may also choose whether to display large or small icons on the toolbar.

### 3.5.4 Tools Menu

The items available in the **Tools** menu are the primary Remark Classic OMR operations. These items vary slightly from the Template Editor to the Data Center.


#### Data Center:



Tool	Menu Pull-Down Item	Function
	Read Wizard (F5)	Opens the Read Wizard so that you may read page(s) from a scanner and place the data into the data grid.
	Easy Scan (Ctrl+F12)	Begins the scanning process based on the last settings used in the Read Wizard. Note that you cannot adjust the settings. If you are unsure of the last settings used, you should use the Read Wizard to scan your forms.
	End Read	Stops the process when scanning forms.
	Review Exceptions (F4)	Searches the open data grid and allows you to correct exception cases (e.g., blank or multiple responses) and enter input region information. The Task Pane on the left shows the available options.
	Review Duplicates	Searches the open data grid and allows you to correct duplicate entries (e.g., two records in the data set belonging to the same respondent based upon the respondent ID). The Task Pane on the left shows the available options.
    	Analysis	<p>Accesses the grade and survey options in the software:</p> <p><i>Easy Grade</i>: grades the current data set using the first grid row as the answer key and grading options as defined in the form template. (F6)</p> <p><i>Grade Wizard</i>: launches the Grade Wizard for customized grading. (Ctrl + W)</p> <p><i>Easy Survey</i>: tabulates the current data set using tabulation options as defined in the form template. (Ctrl + U)</p> <p><i>Survey Wizard</i>: launches the Survey Wizard for customized survey tabulation. (Ctrl + I)</p> <p><i>Analysis Preferences</i>: allows you to modify settings that control the way Remark Quick Stats looks, feels and performs.</p>
	View Reject Log	Displays a log file of all forms that were rejected when scanning forms using a reject stacker.
	Automation Wizard	Launches the Automation Wizard, which allows you to set up executable files that automate basic Remark Classic OMR functions.

Tool	Menu Pull-Down Item	Function
	Send Wizard	Launches the Send Wizard, which allows you to email a data file or send it to an FTP site.
	Test Import Wizard (F12)	Launches the ExamView® Import Wizard, which allows you to import legacy data from the ExamView software.
	Respondent Detection (F11)	Allows you to determine which respondents in your data have been processed, not been processed or have been processed multiple times. This feature is used in conjunction with the Database Lookup feature.
	Perform Spell Check (F7)	Checks the selected data file for spelling errors.
	OMR Scanner (Ctrl + F8)	Accesses the OMR Scanner Properties window so that you can set up a scanner or make changes to the current scanner setup. Use this option when using an OMR only scanner (one without imaging).
	OMR/Image Scanner (Ctrl + F9)	Accesses the OMR/Image Scanner Properties window so you can set up a scanner or make changes to the current scanner setup. Use this option when using an image-enabled scanner.
	Preferences (F9)	Allows you to modify settings that control the way the Data Center looks, feels and performs. Use the Task Pane in the Preferences to perform software customization. Remark Classic OMR saves any changes you make and applies them to future actions.

### 3.5.5 Sheet and Region Menus

The **Sheet** and **Region** menus are available in the Template Editor as you are creating or editing a form template. These menus give you options to add, delete, edit and view the properties of regions in the form template. The items change depending on whether you have selected a Page node or a Region node in the tree view.


Tool	Menu (Page or Region)	Menu Pull-Down Item	Function
	Sheet & Region	Insert Before/After	Inserts a page or region before or after the selected node. Regions can be OMR, barcode or Input.
	Region	Add Linked Region	Adds a region to another region, linking them into one question. This feature is used for regions that have text or lines separating the answer choices and the OMR box cannot be drawn around all of the marks together.

Tool	Menu (Page or Region)	Menu Pull-Down Item	Function
	Region	Link	Links multiple regions together so that they are considered one question.
	Region	Break Region Link	Separates a linked region into individual regions.
	Sheet & Region	Properties	Shows the properties for the sheet or region.

### 3.5.6 Help Menu

When you have questions about the use of Remark Classic OMR, or about a specific menu or command, look in the help file.

**Note:** Help is context-sensitive. Press **F1** while any Remark Classic OMR window is active and help text appropriate to that window displays whenever possible.

Tool	Menu Pull-Down Item	Function
	Contents	Displays the contents of the Remark Classic OMR help file.
	Documentation	Displays a folder containing the Remark Classic OMR user's guides in PDF format.
	Edit Authentication	Allows you to enter a new serial number or authentication code for the software. You should only use this option when directed by Scantron personnel. (Data Center only)
	Register Software	Launches your default web browser and loads the software registration page on the Scantron website. We strongly recommend that you register your software so that you receive important product notifications. (Data Center only)
	Check for Updates	Checks the Gravic website for a software update. If an update is available, you are given prompts to download and install it. If no update is available, you are notified that your software is up to date.
	Copyrights	Displays copyright information for Remark Classic OMR. (Data Center only)
	About Remark Classic OMR Template Editor/Data Center	Displays the About Remark Classic OMR window, showing information about Gravic, Inc. as well as the serial number and current version of the software that is running.



## 3.6 Accessing the Software Help File

Remark Classic OMR includes a help file to provide answers to your questions. Use the following procedures to access help when running Remark Classic OMR:

### To access online help

- 1 To view context-sensitive help on the current window, press **F1**.
- 2 To view the main help contents window for Remark Classic OMR, select the **Help** menu and then click **Contents**.



# Setting Up Your Scanner

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## Chapter 4

### 4.1 Overview

This chapter provides general information about OMR scanners and how to configure your scanner in Remark Classic OMR. You should already have your scanner connected to your computer and, if necessary, the drivers installed that allow the scanner to work before attempting to use your scanner with Remark Classic OMR. Remark Classic OMR allows you to set up your scanner in one of two ways: OMR Only or OMR/Image Scanners (captures scanned form images).

### 4.2 OMR Scanners- General Information

An OMR scanner is a peripheral device attached to a computer that is used to scan paper-based documents, such as standardized tests, evaluations and other form types. OMR scanners come in two basic types: hand feed and automatic feed. You feed sheets through a hand feed scanner one at a time. An automatic feed scanner can handle batches of sheets at one time. Some scanners connect to the computer with a serial cable and some connect using a USB cable (a driver is typically required for a USB connection). If your scanner uses a serial connection and your computer does not have a serial port, you may need to purchase an adapter. Please contact your scanner manufacturer for recommended adapters.

### 4.3 OMR Forms

OMR forms are created specifically to be read by OMR scanners. For this reason, these forms are created to very precise specifications. It is important to review these concepts here before you begin scanning forms.

Aside from the bubbles on the form, the two major characteristics of an OMR form are the **Timing Marks** and the **Columns**.

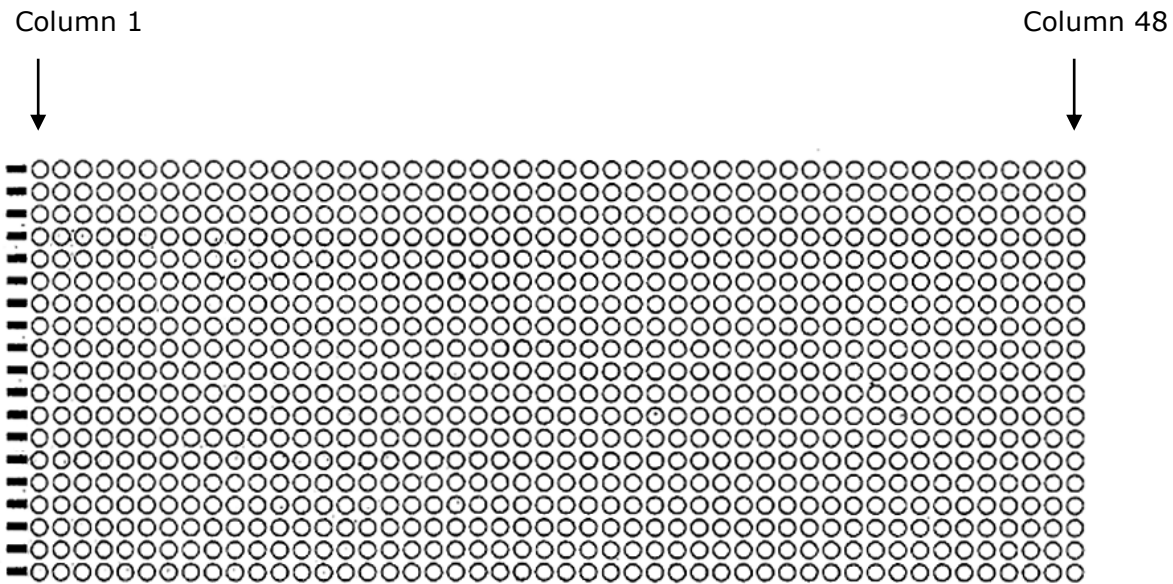
#### 4.3.1 Timing Marks

Timing marks are small, black marks that signify the vertical position of each row of data on the sheet. These marks are placed along the edge of the form and indicate the presence of mark information to the OMR scanner.

#### 4.3.2 Columns

Columns refer to the number of columns (sometimes called channels) that are contained on the form. OMR scanners can typically read either 12 or 48 columns, although 5, 14 and 40 are also possibilities. Each mark on the form lines up with a timing mark and a column. See your OMR scanner's documentation for the specifications for your model.

The following example shows the typical layout of timing marks and columns on a form. The timing marks go down the left side of the form and the columns are numbered from left to right. The actual bubbles for each field on the form could correspond with any combination of timing marks and columns (e.g., a region on the form may be present beginning with timing mark three and column five).



## 4.4

### Selecting Your OMR Scanner

Remark Classic OMR currently supports several OMR scanners. To use an OMR scanner with the Remark Classic OMR software, you must first select your OMR scanner from the list of supported OMR scanners. Please note that if your scanner requires a separate driver to operate, you must install that driver prior to using the scanner in Remark Classic OMR. Please see your scanner documentation for assistance with drivers and installation.

#### 4.4.1 Selecting an OMR Only Scanner

If your scanner is an OMR only scanner, meaning it does not have imaging capabilities, you should set it up using the OMR Scanner Properties window. The following scanners can work in this mode:

OpScan 2	Scanmark 2000
OpScan iNSIGHT 2 (OMR only)	Scanmark 2250
OpScan 3	Scanmark 2500
OpScan 4/4U	Scanmark 4000
iNSIGHT 4/4ES (OMR only)	Scanmark 5500
OpScan 5	Scanmark ES2010
OpScan 6	Scanmark ES2260
OpScan 7	Scanmark ES 2800
OpScan 8	EZData

**To select your OMR scanner**

- 1 From the **Remark Classic OMR Data Center**, select the **Tools** menu, click **OMR Scanner** and then click **OMR Scanner Properties**.
- 2 Click the **Scanner Type** down arrow to display a list of available scanner types. Choose the scanner you are currently using.

Based upon your scanner selection, default settings are displayed. You may change the settings if it is appropriate to your system's setup. The following table details the scanner options:

<b>Area</b>	<b>Options</b>	<b>Meaning</b>
	Scanner Type	Shows the available OMR scanner models.
Scanner Settings	Recognition Threshold	Sets how leniently or strictly the software interprets the marks. This setting specifies a value at which a mark is considered filled.
	Mark Discrimination	Sets the value that determines the difference between two marks that are filled or partially filled, as in the case of erasures.
	Discrimination Cutoff	Sets the value at or above which any mark is considered filled regardless of how other marks in the field are filled.
	Scanner Timeout	Sets the number of seconds for the scanner to respond before timing out.
	System Pause	Sets the amount of time in milliseconds (1/1000th of a second) that the system pauses to ensure that all internal OMR scanner operations are complete.
	Feeder option installed	Mark this checkbox if your scanner has an automatic sheet feeder.
	Duplex option installed	Mark this option if your scanner has duplex capabilities, meaning it can scan both sides of a sheet of paper in one pass through the scanner.
	Select stacker installed	Mark this option if your scanner has a select stacker installed (sometimes referred to a reject stacker or reject hopper). The select stacker is a separate tray where forms containing problems reside (e.g., if a form is scanned but cannot be recognized).

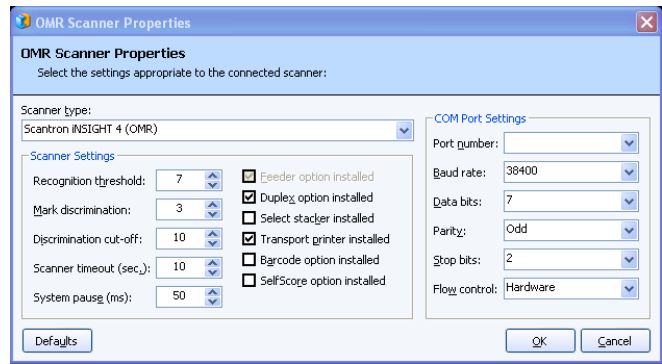
<b>Area</b>	<b>Options</b>	<b>Meaning</b>
	Transport printer installed	Mark this option if your scanner has a printer, which can be used to print score information or items such as date, time and record number as forms are scanned.
	Barcode option installed	Mark this option if your scanner has a barcode reader.
	SelfScore option installed	Mark this option if your scanner can run in SelfScore mode (where grading is handled on the scanner using the scanner's panel).
COM Port Settings	Port Number	Use this setting to select the com port number on the computer to which the scanner is connected. If your scanner is connected via a USB converter, there is still a com port listed.
	Baud Rate	Use this setting to set the default data transfer rate. This setting controls the speed of the transfer of data.
	Data Bits	Use this setting to set the default value for data bits, which are the smallest unit of information on the computer. Information is gathered by combining data bits into bytes of information.
	Parity	Use this setting to set the parity, which is an error detection method used to verify the integrity of individual characters in the data being transferred.
	Stop Bits	Use this setting to set the default value for stop bits, which are bits that indicate that a byte has just been transmitted. Every byte is preceded by a start bit and followed by a stop bit.
	Flow Control	Use this setting to set the default value for flow control, which is the process of adjusting the flow of data from one device to another to ensure that the receiving device can handle all of the incoming data.

**Note:** Once you select your scanner model, the default settings are often appropriate. You may just need to tell the software which options your scanner has installed.

- 3 Mark the appropriate options for your scanner. The settings you choose for the COM port must match the settings on the scanner exactly. Some scanners require you to manually configure or run configuration sheets through the scanner in order to establish settings. Please use your scanner's user's guide for configuration steps. Once the scanner is configured, use the same settings in Remark Classic OMR.

- 4 Click the **OK** button to save your scanner setup options.

**Note:** Once you have selected your scanner, clicking the **Defaults** button sets the scanner's properties back to original software installation state.



- 5 Select the **Tools** menu, click **OMR Scanner** and then click **Set as Default Scanner**. Remark Classic OMR uses this scanner when any scanning commands are executed.

You are now ready to scan forms or if necessary, create a template in the Remark Classic OMR Template Editor. Go to Chapter 5 if you need to create a form template for your form. If you already have a form template for your form, you may go to Chapter 6 to learn how to scan filled in forms.

**Tip:** Many standard forms already have form templates in the software. Check the Templates folder of your Remark Classic OMR installation directory to see the form templates that ship with the software (the default path is C:\Program Files\Gravic\Remark Classic OMR 4\Templates\Scantron\OMR).

#### 4.4.2 Selecting an Image Enabled Scanner

If your scanner has imaging capabilities, meaning that it can capture images of the forms as they are scanned, you should set up your scanner in the OMR/Image Scanner Properties window. The following scanners have image capabilities:

iINSIGHT 20	iINSIGHT 2 (USB mode)
iINSIGHT 30	iINSIGHT 4/4ES (USB mode)

Please note that all the scanners listed in section 4.4.1 can be set up in the OMR/Image Scanner properties. However, we recommend only using this option for the scanners listed above.

When using an image-enabled scanner, an image of each sheet is captured during scanning. You can archive these images and use them to view exceptions on forms that may need your attention (e.g., a multiple response where one was not permitted).

**To select your OMR/Image scanner**

- 1 From the **Remark Classic OMR Data Center**, select the **Tools** menu, click **OMR/Image Scanner** and then click **OMR/Image Scanner Properties**.
- 2 Click the **Auto Detect Scanner** button to have the software automatically search for scanners on the system. Your scanner must be turned on, connected to the computer, and the driver must be installed (if necessary).

**Note:** You can choose your scanner in the **Scanner Configuration** area however, in most cases we recommend simply clicking the **Auto Detect Scanner** button.

Based upon your scanner selection, default settings are displayed. Most items are turned on and off automatically based on how the scanner is configured. If an option is disabled, it means you cannot turn it on or off manually. You have to adjust it on the scanner. Under normal scanning conditions, the default settings are appropriate. The following table details the scanner options:

<b>Area</b>	<b>Options</b>	<b>Meaning</b>
	Auto Detect Scanner	Searches all ports on the system for an active scanner. The scanner must be plugged in, turned on and connected to the computer and if necessary, the driver must be installed in order for the software to find it.
COM Port Settings	Baud Rate	This setting determines the default data transfer rate. This setting controls the speed of the transfer of data.
	Data Bits	This setting determines the default value for data bits, which are the smallest unit of information on the computer. Information is gathered by combining data bits into bytes of information.
	Parity	This setting determines the parity, which is an error detection method used to verify the integrity of individual characters in the data being transferred.
	Stop Bits	This setting determines the default value for stop bits, which are bits that indicate that a byte has just been transmitted. Every byte is preceded by a start bit and followed by a stop bit.



<b>Area</b>	<b>Options</b>	<b>Meaning</b>
Scanner Options	Use select stacker	Mark this option if your scanner has a select stacker installed (sometimes referred to a reject stacker or reject hopper). The select stacker is a separate tray where forms containing problems reside (e.g., if a form is scanned but cannot be recognized).
	Use transport printer	Mark this option if your scanner has a printer, which can be used to print score information or items such as date, time and record number as forms are scanned.
	Use SelfScore	This option is marked if your scanner is running in SelfScore mode (where grading is handled on the scanner using the scanner's panel). Note that if the scanner is in SelfScore mode, this checkbox is checked and disabled. To turn off SelfScore, reset the scanner and then click the Find Scanner button.
	Use bar code reader	Mark this option if your scanner has a bar code reader and you want to read bar codes.
	Duplex scanner	Mark this option if your scanner has duplex capabilities, meaning it can scan both sides of a sheet of paper in one pass through the scanner.
	Write operations log	Mark this option to create an operations log file for the batch. The file is located in the ScanTools Plus Data directory, in a file named OPERATE.LOG, and contains statistics on scanning operations.
Recognition Settings	Threshold	Sets how leniently or strictly the software interprets the marks. This setting specifies a value at which a mark is considered filled.
	Discrimination	Sets the value that determines the difference between two marks that are filled or partially filled, as in the case of erasures.

Area	Options	Meaning
	Mark Cutoff	Sets the value at or above which any mark is considered filled regardless of how other marks in the field are filled.
	Timeout	Sets the number of seconds for the scanner to respond before timing out.

- 3 Mark the appropriate options for your scanner. Most options are enabled and disabled based on how the scanner is configured. If an option is disabled, you may not change it in the software (you can typically change it on the scanner if it is a supported feature of your particular scanner). You can turn on and off certain features such as the printer and select stacker.
- 4 Click the **OK** button to save your scanner setup options.  
**Note:** Once you have selected your scanner, clicking the **Find Scanner** button sets the scanner's properties back to the original state.
- 5 Select the **Tools** menu, click **OMR/Image Scanner** and then click **Set as Default Scanner**. Remark Classic OMR uses this scanner when any scanning commands are executed.

You are now ready to scan forms. Proceed to Chapter 6 to learn how to scan filled in forms.

# Using the Template Editor

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## 5.1 Overview

The first step in using Remark Classic OMR is to create or locate the form templates for the forms you wish to process in the software. A form template file contains the information needed to instruct Remark Classic OMR about each form. The form template conveys the location of the information on the pages (e.g., the bubbles the respondents will darken) and the specifics of the data you require. The form template defines the backend database you will use for storage of the processed data. You create a form template for each form that you wish to process using the software.

Remark Classic OMR contains pre-defined form templates for many commonly available forms. If your form does not have an associated form template, you need to make a form template in order to use the form. Form templates are created in the Remark Classic OMR Template Editor. If a form template already exists for your form, you do not need to use the Template Editor at all. You can skip to Chapter 6, Scanning Forms, and start scanning your forms.

**Tip:** Before attempting to use the Template Editor, check to see if your form already has a template created. By default, form templates are installed in this location: C:\Program Files\Gravic\Remark Classic OMR 4\Templates\Scantron\OMR. If you see folders that contain form templates you do not use, please do not delete the folders; this will force Remark Classic OMR to try to reinstall them when you next run the software.

Form templates are created by looking at the physical form and then recreating the bubble areas in the Remark Classic OMR Template Editor. You use the mouse to drag boxes (called regions) around the marks (e.g., bubbles) and other areas you want to have recognized on your form. These regions tell the software where each piece of information you want to capture is located on the page and other pertinent information about the form. They also tell the software what type of data you need the software to output from each area. You may only edit and create templates that have a .rco extension, which work with regular OMR scanners (not OMR/Image scanners).

**Special Note for Image-Enabled Scanners:** If you are using an image-enabled scanner, you are not able to create and edit form templates. You must use the templates found in C:\Program Files\Gravic\Remark Classic OMR 4\Templates\Scantron\OMR-Image. There are required files that match these templates; therefore changing the templates causes them to stop working with the software. If you have a need to change an existing form template or create a form template for a custom form, please contact Scantron for assistance.

The following topics are covered in this chapter:

- Creating form templates (Section 5.2)
- Using the Template Editor (Section 5.2)
- Region types (Section 5.2)

- Creating regions (Section 5.2)
- Advanced region options (Section 5.3)
- Additional features (Section 5.4)
- Saving Form Templates (Section 5.5)
- Editing existing form templates (Section 5.6)

## 5.2 Creating Form Templates

### 5.2.1 Using the Template Editor

The Remark Classic OMR Template Editor contains two basic components that you use to create and edit your form templates. The left portion of the Template Editor window contains a tree view with nodes representing each region in your form template. You can think of the tree view as an item list. The right side of the window contains a page representation of your form, or a graphical replication of your form. You may use the tree view and the page representation area to work with your form template. Each node in the tree view contains the properties of that node, which can be accessed by double clicking the node. You may also double click within a region in the page representation area to view the region's properties. Continue with the following sections for specific instructions on using the Template Editor. If you are unfamiliar with OMR terminology, you may wish to read Chapter 1: Remark Classic OMR Overview before attempting to use the Template Editor.

### 5.2.2 Region Types

Regions are explained in more detail later in this chapter, but it is worth providing an overview here. There are three basic region types that Remark Classic OMR can process:


Region Type	What is on Your Form	Description
OMR (Optical Mark Recognition)	Bubbles, checkboxes or any other complete shape, often used for answering multiple choice questions, filling in names and codes, etc.	OMR regions are used to capture marks, such as bubbles and checkboxes, on your form. Marks can be used to collect many varying types of information, ranging from multiple choice questions to ID numbers to names.
Barcode	Printed barcode or barcode sticker	Barcodes are used to encode just about any desired information, ranging from names to ID numbers to other demographic information.

Region Type	What is on Your Form	Description
Input	An area for handwritten text, or other information that cannot be automatically converted to data	Input regions allow you to manually enter information into your data set. For example, you can use Input regions to capture handwriting from comment areas and other open ended questions. The software does not automatically interpret handwriting, but it does allow you to hand enter the written information.

Now that you know how your form translates to a form template, we can begin the basics of form template creation.

### 5.2.3 Beginning the Form Template

Form templates are created in the Remark Classic OMR Template Editor. There are two main ways to access the Template Editor to create a new form template:

- From the **Remark Classic OMR Data Center**, select the **File** menu and then click **New Form Template** or click . Alternatively, with the **Templates** tab selected, click **New form template** in the Task Pane.
- From your Windows **Start** menu, click **Start|Programs|Remark Classic OMR 4|Remark Classic OMR Template Editor**.

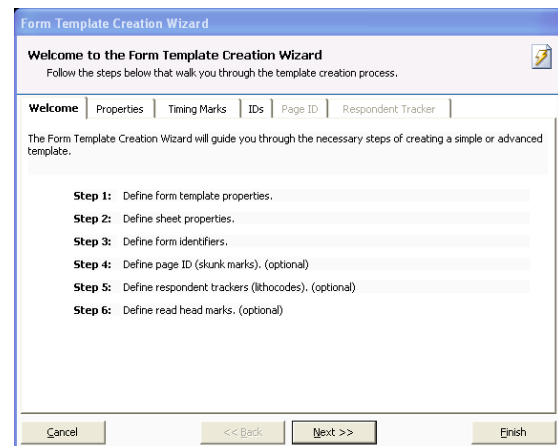
#### To create a new form template

- From the **Template Editor**, select the **File** menu and then click **New**, or click , to begin a new form template.

The **Form Template Creation Wizard** window appears. This wizard allows you to specify general information about the form template, including a name, description, number of sheets, columns and timing marks and other pertinent information.

- Click the **Next>>** button to start the wizard.
- In the **Form Type** section, choose **Simplex Form** or **Duplex Form**. A simplex form contains a single sided sheet or sheets and a duplex form contains a double sided sheet or sheets. Here are some examples of form types:

- One sheet of paper with OMR marks on one side is a simplex form with one sheet.
- One piece of paper with OMR marks on both sides is a duplex form with one sheet.



- Two pieces of paper with OMR marks on both sides is a duplex form with two sheets (this is often in booklet form).

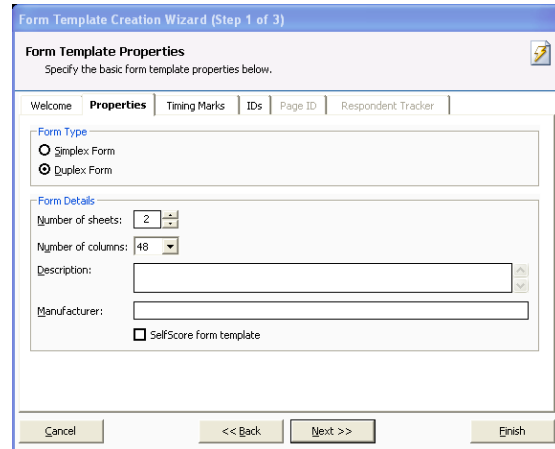
**4** In the **Form Details** section, choose the **Number of Sheets** and the **Number of Columns** in the form. The number of sheets corresponds with the how many pieces of paper the form contains (not the number of sides). For example, a one page duplex form would have one sheet with two sides.

**5** In the **Form Description** box, enter a brief description of the form, if desired.

**6** In the **Form Manufacturer** box, enter the name of the form manufacturer, if desired.

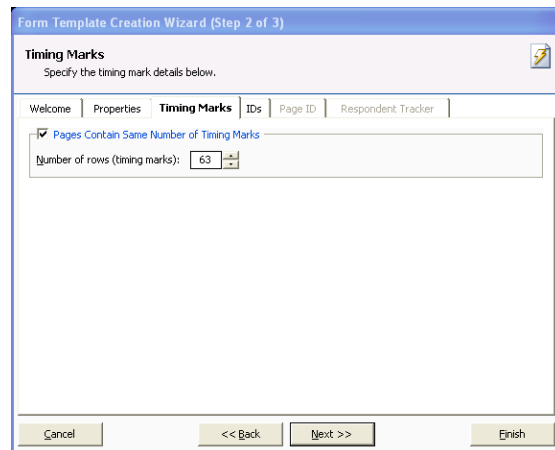
**7** If this form template will be used to scan in SelfScore mode (specially equipped scanners only), mark the checkbox titled **SelfScore form template**.

**8** Click the **Next>>** button to continue.



The **Step 2** window appears.

**9** If all of the sheets within the form have the same number of timing marks, mark the checkbox for **Pages Contain the Same Number of Timing Marks** and then enter the number of timing marks on the form. If each sheet has a different number of timing marks, deselect the checkbox and type in the number of timing marks on each side of each sheet.



**10** If your form does not contain page ID marks or respondent trackers, click the **Finish** button and proceed to section 5.2.3. Otherwise, click the **Next>>** button to continue.

The **Step 3** window appears. This window allows you to specify page ID marks and/or respondent trackers (lithocodes) if either is present on your form. Page ID marks are used to identify a sheet within a form. A respondent tracker, often called a lithocode, is used to identify a particular respondent. A respondent tracker can be an OMR region or a barcode. In order to use respondent trackers, you must have a multi-sheet form. You can use respondent trackers and page ID marks independently or together. If you use a page ID mark in conjunction with a respondent tracker, Remark Classic OMR can identify specific sheets as belonging to a specific respondent when reading forms. This feature is useful when scanning multi-page forms, such as booklets. If the pages are scanned out of order, the software is able to collate the data together based on the page IDs and respondent trackers.

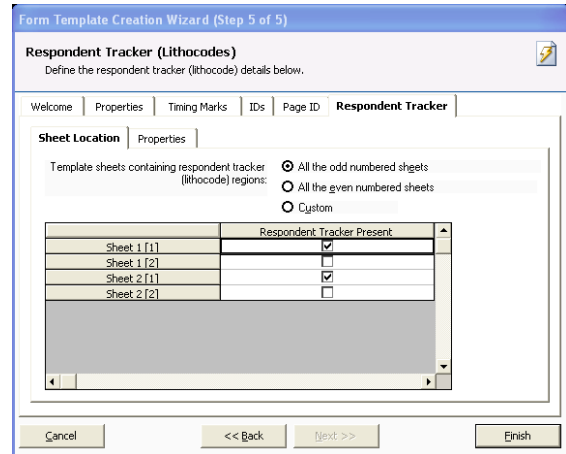
- 11** If identifying a page ID mark, mark the checkbox for **Page ID Mark Present**.
- 12** Select whether the page ID mark is oriented by **Column** or **Row**. The specific information about the mark's location changes depending on its orientation.
- 13** Enter the information about the page ID mark's location (e.g., location row or column, start row or column and end row or column). You will be able to specify specific locations in the next step. Use caution when entering the end column. If you instruct the software to read all the way to the end of the form, any stray marks in that area can be picked up, causing the page not to be recognized. It's advisable to use an End Column that is one after your last page ID mark.
- 14** If identifying a respondent tracker, mark the checkbox for **Respondent tracker present**.
- 15** Mark the checkbox for **Display Respondent tracker in grid** if you would like the data from the respondent tracker to be visible in the data grid during form processing.
- 16** Select the type of region being used for the respondent tracker in the box titled **Recognition type**. This region can be an OMR region or a barcode region.
- Note:** If using an OMR region as a respondent tracker, the OMR region must output a single piece of data.
- 17** If the form you will be scanning has a read head test row (a sequence of marks that tests the read heads on the OMR scanner), mark the checkbox for **Read head test in row** and then enter the row number in the adjacent box. If your form does not have a read head test row, you may skip this step (it is not common).
- 18** Click the **Next>>** button to continue.

The **Step 4** window appears. This window allows you to select properties pertaining to the page ID marks.

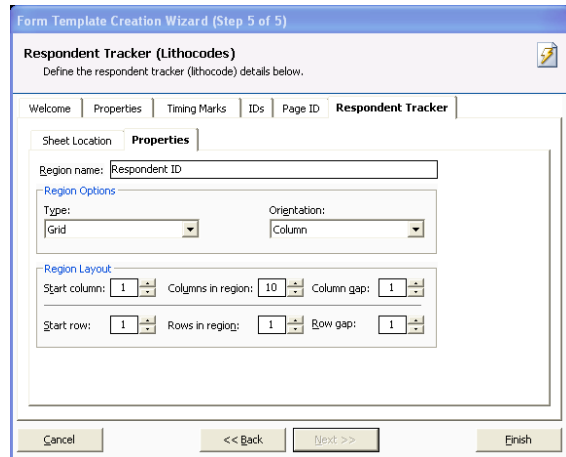
- 19** Select the column(s) that contain the page ID marks.
- 20** If scanning a double sided form, mark the checkbox for **Sheets have the same page ID values on both sides** if the page ID marks are identical on both sides of the sheet. If the same page ID marks are not present on all sides of all sheets, deselect this checkbox and place checkmarks in the appropriate columns where the page IDs are located on each sheet.
- 21** If you have chosen to use respondent trackers (lithocodes), click the **Next>>** button and go to step 22. Otherwise, click the **Finish** button to complete the **Form Template Creation Wizard**.

	Sheet 1 [1]	Sheet 1 [2]	Sheet 2 [1]	Sheet 2 [2]
Column 1				
Column 2				
Column 3				
Column 4				
Column 5	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
Column 6				
Column 7	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
Column 8				
Column 9				
Column 10				
Column 11			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Column 12				
Column 13			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Column 14				

**22** If you are using respondent trackers, the **Step 5** window appears. In the **Template sheets containing respondent tracker regions** area, select the location of the respondent trackers on the various sheets. Respondent trackers do not have to be present on each sheet. The default options for duplex forms are: **All the odd numbered sheets** or **All the even numbered sheets** and. The default option for simplex forms is **All sheets**. You may also enter custom locations by selecting the **Custom** option button. If using custom locations, enter them in the **Respondent Tracker Present** grid on a per sheet basis.



**23** Click the **Properties** tab to enter properties for the respondent trackers. This information tells the software where to locate the respondent tracker on the form.



**24** In the box titled **Region Name**, enter a name for the region. The default name is Respondent ID but you may enter a different name.

**25** In the **Region Options** section, choose a region type.

- If the respondent tracker region is an OMR region, it must output a single piece of data. Therefore, you are limited to the **Grid**, **Add** and **Binary** region types.
- If the respondent tracker is a barcode region, you can choose the **Text** or **Numeric** data type and enter the **Measurement Options** for the barcode. Barcodes must be vertical in orientation.

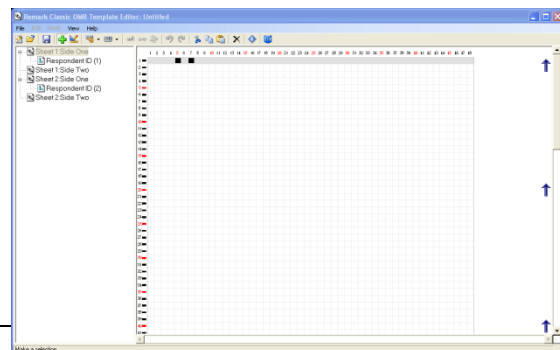
**26** If using an OMR region, select the orientation in the **Orientation** drop-down box. Orientation can be by **Row** or **Column**.

**27** In the **Region Size** section, enter the location of the respondent tracker region. Enter the following information: **Start column**, **Number of columns**, **Column gap**, **Start row**, **Number of rows** and **Row gap**. This information translates to the location of the region on the paper form.

**Note:** Specific properties of regions are described in greater detail later in this chapter. If you require more information about region types and region sizes, please refer to Section 5.2.4.

**28** Click the **Finish** button to complete the **Form Template Creation Wizard**.

Remark Classic OMR opens a window with a tree view on the left and a page





representation of your form on the right. The blue arrows indicate the direction in which the form is read. In this window you outline the areas to be recognized. You use this window to show the software where the various regions of data are on your form and what to output during scanning. This task is accomplished by creating regions.

### 5.2.4 Creating Regions

Regions can be created several different ways: by using the tree view, menus, or toolbar. The following sections detail these methods.

You can create regions using the tree view by utilizing the page representation area to bring up any of these menus.

#### Using Menus to Insert Regions

- 1** Click the node above or below where you would like the new region to be added so that it is highlighted. For the first question, click the **Sheet 1** node.
- 2** Click the **Region** menu if you have selected a region. Click the **Sheet** menu if you have selected a sheet.
- 3** Click **Insert Before** or **Insert After**, depending on where you would like the new region or sheet located in respect to the highlighted node.


#### Using a Mouse to Insert Regions

- 1** Click the node above or below where you would like the new region to be added so that it is highlighted. For the first question, click the **Sheet 1** node.
- 2** Right click the same node, to display a drop-down menu.
- 3** Click **Insert Before** or **Insert After**, depending on where you would like the new region or sheet located in respect to the highlighted node.

- 4** From the **Insert** menu, choose **Region**, **Input**, or **Barcode**, depending on the type of region you want to create. See the next section for detailed descriptions of each of these region types.

The **Region** or **Sheet Properties** box appears. Region types and properties are explained in Section 5.2.5.a.

#### Using the toolbar and the page representation area to create regions

- 1** Select the toolbar button representing the region type you would like to create: 



(OMR, Input, Barcode).

The mouse turns to a crosshair when defining an OMR region. For Input and Barcode regions, the **Region Properties** window appears immediately.

- 2** If defining an OMR region, drag a box through the area representing the positioning of your region in the page representation area. For example, if you are creating an OMR region that starts in column three and at timing mark five, and contains ten rows and five columns, you would place the crosshair at column three and row five and then drag the box ten rows and five columns. If you make a mistake when dragging the box, you can make corrections in the Region Properties window.

The **Region Properties** window appears. The next few sections outline each of the possible region types and their properties.

### 5.2.5 OMR (Optical Mark Recognition) Regions

An OMR region is an area on the form containing OMR bubbles, checkboxes, or some other complete shape. The respondent darkens the marks that correspond with his or her answer choice. Each OMR region contains a specific number of rows and columns. A single OMR region can contain one or more questions. When an OMR region is created, you must specify certain properties pertaining to the region, including the size of the region, the type of region and what output Remark Classic OMR should generate. These topics are covered in the following sections.

#### 5.2.5.a OMR Region Types

There are six types of OMR regions. The following section describes each type in full detail, and includes examples of each style. The examples include the region as it looks on the printed form as well as how a selected response might appear in the data grid when you are processing forms.

**Multiple Region:** A Multiple region designation is used for multiple-choice style questions. These questions can allow a single response or multiple responses. One Multiple region may contain more than one question.

*Example 1:*

<p>Form:</p> <p>Gender</p> <p><input checked="" type="radio"/> Female</p> <p><input type="radio"/> Male</p>	<p>Data Output:</p> <table border="1" style="border-collapse: collapse; width: 80px; height: 80px;"> <tr style="background-color: #cccccc;"> <td style="padding: 5px;">Gender</td> </tr> <tr> <td style="padding: 5px;">Female</td> </tr> </table>	Gender	Female
Gender			
Female			

*Example 2:*

<p>Form:</p> <p>Question 1     <input checked="" type="radio"/> (B)   (C)   (D)</p> <p>Question 2     (A)   <input checked="" type="radio"/> (C)   (D)</p> <p>Question 3     (A)   (B)   <input checked="" type="radio"/> (D)</p>	<p>Data Output:</p> <table border="1" style="border-collapse: collapse; width: 200px; height: 100px;"> <thead> <tr style="background-color: #cccccc;"> <th style="padding: 5px;">Question1</th> <th style="padding: 5px;">Question2</th> <th style="padding: 5px;">Question3</th> </tr> </thead> <tbody> <tr> <td style="text-align: center; padding: 5px;">A</td> <td style="text-align: center; padding: 5px;">B</td> <td style="text-align: center; padding: 5px;">C</td> </tr> </tbody> </table>	Question1	Question2	Question3	A	B	C
Question1	Question2	Question3					
A	B	C					

**Grid Region:** A Grid region designation is used for questions where the output from the rows and columns represents one piece of data. The respondent typically fills in several bubbles that make up one response (e.g., student ID numbers, names, social security numbers).

*Example:*

Form:

Identification Number

0 1 2 3 4 5 6

<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Data Output:

Id Number
0123456

**List Region:** A List region designation is used for regions that contain multiple choice style questions, but the response bubbles are not contained in a single row or column. Each bubble has a unique output value.

*Example:*

Form:

What is your middle initial?

<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Data Output:

Middle Initial
L

**Add Region:** An Add region designates a region where the values of all of the chosen OMR bubbles are added together to produce one value. You can assign individual values to each answer choice (or mark on the form).

*Example 1:*

For this example, you could add each of the scale values chosen to make up one total response:

Form:

Please answer the following questions honestly using the scale provided:

	Unhappy			Happy	
	1	2	3	4	5
How do you feel today?	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
How did you feel yesterday?	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
How did you feel last week?	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>

Data Output (2+2+3):

Feelings
7

*Example 2:*

In this example, you could assign a 1 to each positive response and a -1 to each negative response and Remark Classic OMR would output a total:

Form:

Mark the characteristics that you think apply to you:

(+1)	(-1)
<input checked="" type="radio"/> happy most of the time	<input type="radio"/> unhappy most of the time
<input type="radio"/> laid back	<input checked="" type="radio"/> tense
<input type="radio"/> fun	<input checked="" type="radio"/> boring
<input checked="" type="radio"/> intelligent	<input type="radio"/> unintelligent
<input checked="" type="radio"/> exceptional	<input type="radio"/> average

Data Output (1+1+1-1-1):

Characteristics
1

**Boolean Region:** A Boolean region designation is used when you want a user-defined value (e.g., Yes) to be output if an answer choice is selected and another user-defined value (e.g., No) for answer choices that are not selected. Each response is output to a separate cell in the data grid during form processing. In comparison, when you use the Multiple or List region types for questions that allow multiple responses, Remark Classic OMR places the data in a single cell, delimited by commas. The Boolean region type is useful for questions that allow multiple responses but for which you need the data in separate cells. For example, the Boolean region type can be used when you are exporting data to programs such as the legacy SPSS format that cannot handle multiple

responses that are delimited by a comma. (The regular SPSS format does not require multiple responses to be output as Boolean regions.)

*Example:*

Form:

In which of the following activities do you participate (mark all that apply)?

- Athletics (collegiate)
- Athletics (intramural)
- Chess Team
- Debate Team
- Marching Band

Data Output:

Activity1	Activity2	Activity3	Activity4	Activity5
No	Yes	No	Yes	No

**Binary Region:** A Binary region designation is used when you want a pre-defined value (1) to be output if an answer choice is selected and another pre-defined value (0) for answer choices that are not selected. Binary regions output all responses to one cell. Using the previous example you would have the following:

*Example:*

Form:

In which of the following activities do you participate (mark all that apply)?

- Athletics (collegiate)
- Athletics (intramural)
- Chess Team
- Debate Team
- Marching Band

Data Output:

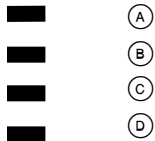
Activities
01010

### 5.2.5.b Region Orientation

The region orientation property determines how the region is laid out: by column or by row.

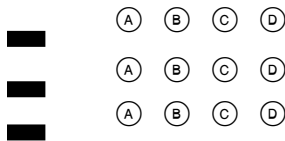
Column: Regions oriented by column contain questions that are positioned on the form in columns when the sheet is viewed in portrait position with the timing marks on the left.

Example:



Row: Regions oriented by row contain questions that are positioned on the form in rows when the sheet is viewed in portrait position.

Example:



### 5.2.6 Defining the OMR Region

Once you have inserted an OMR region, the OMR Region Properties window appears. The following table contains a brief summary of the OMR Region properties. Further details on Region Types and Region Orientation are contained in the sections that follow.

---

Property	Function
Region Name	A name assigned to an OMR region. Region names are used as grid column headers in the data grid window and are exported when saving data to common file formats. Region names are limited to 60 characters.


---

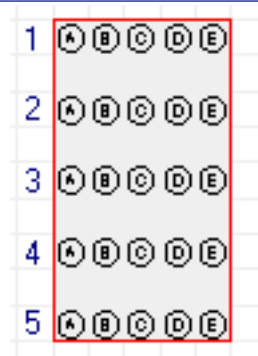
<b>Property</b>	<b>Function</b>
Type	<p>The type of OMR region being described. Region types include:</p> <p><i>Multiple</i>- indicates a region containing multiple-choice questions.</p> <p><i>Grid</i>- indicates a grid or matrix of marks (bubble, checkbox) that equates to a single piece of data (e.g., student ID number).</p> <p><i>List</i>- indicates a region where each mark is assigned a unique output value, but the marks are not contained in a single row or column (e.g., a list of answer choices).</p> <p><i>Add</i>- indicates a region where the values for each of the answers that are filled by the respondent are added together to produce a single value for numeric data, or concatenated together for textual data.</p> <p><i>Boolean</i>- indicates a region where a user-defined value (e.g., Yes) is output for filled responses and another value (e.g., No) is output for non-filled responses. Boolean regions output one piece of data for each mark (answer choice) in the region.</p> <p><i>Binary</i>- indicates a region where a value of 1 is output for filled responses and a value 0 is output for non-filled responses. Binary regions output a string of responses (1s and 0s) to a single cell.</p>
Orientation	<p>Sets the orientation of the region in terms of columns and rows:</p> <p><i>Column</i>- the region contains questions that are oriented by columns.</p> <p><i>Row</i>- the region contains questions that are oriented by rows.</p>
Start Column	Sets the first column number in the region. Columns correspond to the column number on the paper form (1-48).
Number of Columns	Sets the number of columns contained in the region.
Column Gap	Sets the distance between columns of bubbles in the region. If bubbles are right next to each other, this number is typically 1. If there is a one bubble gap between bubbles, the column gap is typically 2 (or -2 if working on the backside of the form).
Start Row	Sets the first row number in the region. Rows correspond to the timing marks on the left side of the form. For example, if the first bubble in the region corresponds with the fifth timing mark, the start row is 5.
Number of Rows	Sets the number of rows contained in the region.
Row Gap	Sets the distance between rows of bubbles in the region. If bubbles are right above one another, this number is typically 1. If there is a timing mark gap between rows of bubbles, the row gap is typically 2 (or -2 if working on the backside of the form).
Data Type	Sets whether the data should be considered text or numeric when saved/exported.

Property	Function
Possible label scales	Sets a range of pre-determined values as output Labels (e.g., A-E or 1-5). Use this setting to quickly enter Labels into the Labels grid as opposed to entering each Label individually. Each mark on your form is represented by a Label. The Label is the output when the form is scanned. Note that only label scales corresponding to the number of answer choices you have selected appear in this list.
Labels	Sets the output data that appears in the data grid when reading forms. Each mark on your form is represented by a Label. The Label is the output when the form is scanned. You cannot use the following reserved characters in the list of Labels: commas, quotation marks, semicolons or parentheses. Enter labels carefully because once you have processed data, you cannot change your labels without reprocessing your forms.
Value	Use this setting to associate a numeric value with each textual answer choice (Label). Values are used for calculating statistics for responses that are set to the textual data type. Values are also used when saving to the SPSS file format. Note that values are <b>not</b> used as point values when grading tests. You cannot assign partial credit to individual answer choices when performing test grading.
Possible value scales	Sets a range of pre-determined numbers as Values. Use this setting to quickly enter Values for each of your textual output Labels into the Values grid as opposed to entering each Value individually.
Scale	Sets a range of user-defined values as Labels that you can save and use over again (e.g., Excellent, Good, Fair, Poor). Click <b>Edit</b> to edit an existing scale. Or, enter a scale in the Label Range box or Labels grid and click <b>Add</b> to add the scale to your list of reusable scales.
Define Format	The <b>Define Format</b> feature applies to Grid OMR regions only. Mark this checkbox to enter a pattern for the data that is output during form processing. The default setting (*) indicates that the characters are displayed one after the other with no separators. The * is a placeholder for your data. You may change this pattern to enter items such as slashes for a date, decimal points, etc. Enter the appropriate character in the proper position (e.g., for a date: **/**/****).



### To create an OMR region

- 1 From the **Sheet** or **Region** menu choose **Insert After** or **Insert Before** and then click **Region**, or click .
- 2 Use the mouse to drag a box around the marks in the region in the page representation section. If you accidentally select the wrong number of marks, you can correct it within the properties window that appears next.
- 3 In the **OMR Region Properties** box, enter the appropriate properties for the region based on the table provide on the previous page. When entering labels, remember that this is the output in your data file. Ensure the labels are entered carefully.
- 4 Click the **Advanced** button if you would like to use any advanced region options. See Section 5.3 for detailed descriptions of the advanced features.
- 5 Click the **OK** button.



After creating an OMR region, you see the region in the page representation area and a new node is added to the tree view. Each OMR region in the page representation area is shaded in gray or yellow to differentiate the regions. A selected region is outlined in red.


### 5.2.7 Linking OMR Regions

Marks that have a disproportionate number of columns and rows or column/row gaps cannot be selected in one region definition. The Add Linked Region function allows you to link these types of marks into one OMR region. OMR Region types that can be linked include Multiple, Grid, List, Binary and Add. The following is an example of a region that falls into this category:

O A O D O F  
 O B O E O G  
 O C

Each column contains varying numbers of bubbles. You can link the columns together using the Add Linked Region option. Once linked, the software treats the bubbles as one question.

### To use the add linked region function

- 1 Create an OMR region for the first set of marks (OMR bubbles) to be linked as if they were their own region (in the previous example, you would select the first column of marks for "A-C").
- 2 After defining the first part of the region, select the **Region** menu and then click **Add Link**, or click . Alternatively, you can right click the item in the tree view and choose **Add Link**.

The mouse turns into a crosshair.

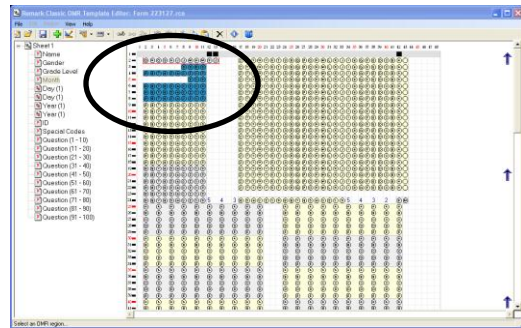
- 3 Drag a box covering the second set of marks to be defined (in the previous example, you would select the second column of marks for "D-E").

When you release the mouse button the **OMR Region Properties** window appears. This window contains the same settings that were defined for the first part of the region that you selected. You need only define the Labels and Values (if desired) section of the window.


- 4 Make any necessary changes to the region definition and then click the **OK** button.
- 5 Continue using **Add Link** until all marks in the region are defined.

Regions that are defined with the Add Link function are automatically linked to the previous region. These regions are colored blue in the page representation window.

To view or change the properties of all regions included in a linked region, you can select all of the nodes representing the linked region, right click the mouse and then click Properties. The Properties are for the region as a whole (all of the linked regions). To make certain changes to a region that is already linked, you need to first separate the regions, make the changes and then relink the regions.




### To separate a linked region

- 1 Use the tree view or page representation area to select one of the OMR boxes within the linked set you want to separate.
- 2 Select the **Region** menu and then click **Unlink**, or click .

The regions are separated into individual OMR regions. If you need to make changes to the regions, edit the regions and then relink them.

### To relink regions

- 1 While holding down the **Shift** key, select each OMR region to be linked by either clicking its node or clicking it in the page representation area.
- 2 After all regions are highlighted, select the **Region** menu and then click **Link**, or click . Note that regions must be of the same OMR Type and Data Type to be linked.


## 5.2.8 Creating an Input Region

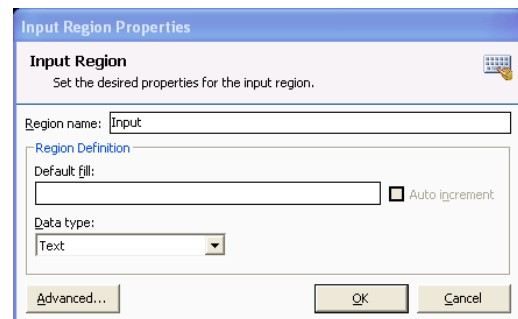
Input regions reserve space in the data grid for the manual insertion of text during or after scanning. Use Input regions to capture handwritten information (e.g., a person's name). You can manually type the information contained in the Input region into the data grid.

An input region has the following properties:

Property	Function
Region Name	A name assigned to an Input region. Region names are used as grid column headers in the data grid window and are exported when saving data to common file formats. Region names are limited to 60 characters.
Default Fill	Sets a default entry to be used in the Input region. The information typed here is automatically output to the data grid when forms are scanned. You may optionally use the <b>Auto Increment</b> option if entering a numeric value. The data is incremented by one as each form is scanned.
Data Type	Sets whether the data should be considered text or numeric when saved/exported.

### To create an input region

- From the **Sheet** or **Region** menu, click **Insert Before** or **Insert After**, then choose **Input**, or click .
- In the **Input Region Properties** box, enter the appropriate properties for the region based on the information in the previous table.
- Click the **Advanced** button if you would like to use any advanced region options. See Section 5.3 for detailed descriptions of the advanced features.
- Click the **OK** button.



After creating an Input region, a new node is added to the tree view. Input regions are not visible in the page representation area.

## 5.2.9 Barcode Regions

Remark Classic OMR can capture data from barcodes on your forms. In order to use barcodes, your OMR scanner must include a supported barcode reader. You must set the barcode guides on the barcode reader component of the OMR scanner so that they begin with the column containing the barcode. Remark Classic OMR then reads the barcodes that are in that column. Barcodes must be oriented vertically on the form. Consult your OMR scanner's documentation for specific information about the barcode reader function on your OMR scanner and any limitations on how many barcodes you may place on one form.

**Note:** Most barcode readers allow for a certain number of barcodes per column. Check your OMR scanner's specifications for this information.


Barcodes are often placed on forms using stickers. Remark Classic OMR cannot determine how many barcode stickers are on a form and whether barcodes are missing. Therefore, if you are in this situation, it is advisable to create a barcode that reads "blank" and use it as a placeholder for the missing barcode. For example, suppose you are anticipating having five barcodes on your form. However, on some forms there are only four barcodes. Suppose the four barcodes are in positions 1, 2, 3 and 5 (the space allocated for the 4<sup>th</sup> barcode is not used). On the affected forms, put a barcode that reads "blank" in the space occupied by the 4<sup>th</sup> barcode. Otherwise, Remark Classic OMR

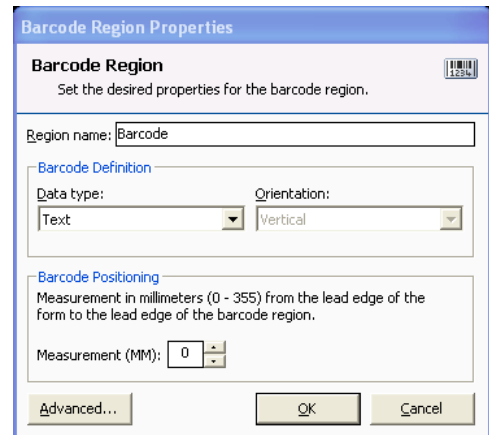
will read the 5<sup>th</sup> barcode as the 4<sup>th</sup> barcode. By having the “blank” barcode, you can easily discern which barcode was missing.

Barcode regions have the following properties:

Property	Function
Region Name	A name assigned to a barcode region. Region names are used as grid column headers in the data grid window and are exported when saving data to common file formats. Region names are limited to 60 characters.
Data Type	Sets whether the data should be considered text or numeric when saved/exported.
Barcode Orientation	Barcodes are oriented vertically on OMR forms. This property is not changeable by the user.
Measurement	Sets the number of millimeters from the leading edge of the form to the leading edge of the barcode (used for Sekonic OMR scanners only).

### To create a barcode region

- 1 From the **Sheet** or **Region** menu, click **Insert Before** or **Insert After**, then choose **Barcode**, or click .
- 2 In the **Barcode Region Properties** box, enter the appropriate properties for the region based on the information in the previous table.
- 3 Click the **Advanced** button if you would like to use any advanced region options. See Section 5.3 for detailed descriptions of the advanced features.
- 4 Click the **OK** button.



After creating a Barcode region, a new node is added to the tree view. Barcode regions are not visible in the page representation area.

## 5.3 Advanced Region Properties and Features

Each region type (OMR, Input and Barcode) has a set of more advanced features associated with it that are optional. When creating regions, you see only those options appropriate for the type of region you are creating. You can access the advanced features by clicking the Advanced button in the Region Properties window.

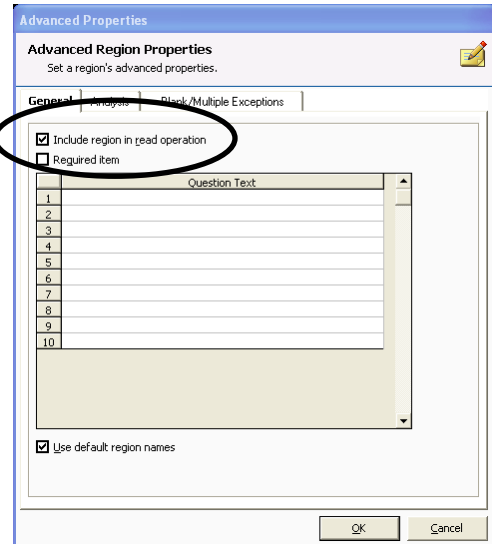
Each advanced feature is explained in detail in the following sections.

### 5.3.1 Advanced Properties: General: Include Region in Read Operation

Remark Classic OMR allows you to set whether to read a region that has been defined. Most of the time, you want to read each region you define, thus this property is on by default. However, there may be an occasion where you wish to turn off recognition of a particular region for your application. You can deselect the Read region checkbox to exclude data from this region when processing forms. If this checkbox is not marked the region exists in the form template, but no data is captured during form processing. This checkbox is on by default.

#### To include a region in the read operation

- 1 Create a region as defined in Section 5.2.4.
- 2 From the **Properties** window, click the **Advanced** button.
- 3 Mark the checkbox for **Include region in read operation**.
- 4 Click the **OK** button twice to save the changes and return to the tree view.

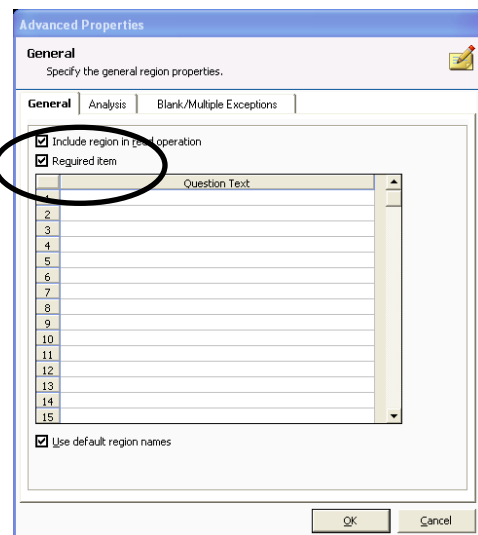


### 5.3.2 Advanced Properties: General: Required Region

Remark Classic OMR allows you to make items required to be filled during scanning. If an item is marked as required in the form template and you are using the Review Exceptions feature, Remark Office OMR flags any items that are left blank. If you are using Review Exceptions during scanning, the scanning stops so that you may review the unrecognized item. If you are using Review Exceptions after scanning, Remark Office OMR includes the unrecognized item during the review operation.

#### To set an item as required

- 1 Create a region as defined in Section 5.2.4.
- 2 From the **Properties** window, click the **Advanced** button.
- 3 Mark the checkbox for **Required item**.
- 4 Click the **OK** button twice to save the changes and return to the tree view.



### 5.3.3 Advanced Properties: General: Question Text and Region Names

The Question text and names section of the Question Properties window allows you to enter custom question text and question names. Question text is displayed on reports and exported to certain formats, such as SPSS. Question names are used as column

headers in the template grid and are exported along with your data. Question names are limited to 60 characters.

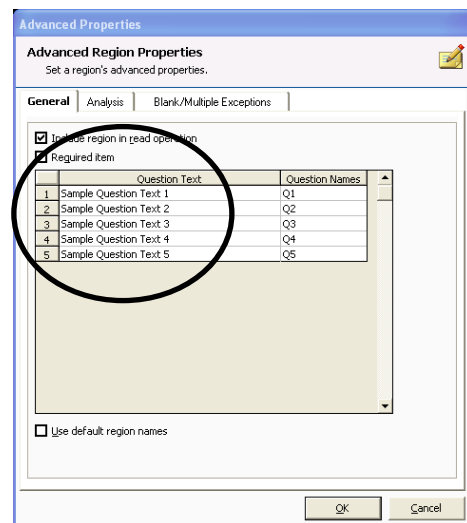
### 5.3.3.a Question Text

Question text may optionally be added to make reports more meaningful. When question text is present, it is used on the reports to identify the question. If no question text is entered, the region names are used on the reports.

You may manually type question text into the question text grid or paste text from the Windows clipboard by using the keyboard shortcut, Ctrl + V, or by double clicking a cell, then right clicking and choosing Paste from the menu. In order to paste information, you must first copy it from another location (e.g., a Word document). You may select multiple rows in the grid to paste multiple lines of question text.

#### To enter question text for a new region

- 1 Create a region as defined in Section 5.2.4.
- 2 From the **Properties** window, click the **Advanced** button.
- 3 Click in the first grid cell under **Question Text**.
- 4 Type the desired question text in the first grid cell. Alternatively, double click in a cell, then right click and select **Paste** from the menu or press **Ctrl + V** on the keyboard to paste the contents of your Windows clipboard into the cell.
- 5 Press the **Enter** key on the keyboard or click in the next cell going down to continue adding question text (only applies to regions with more than one question).
- 6 Once you have entered all of the desired question text, click the **OK** button twice to save the changes and return to the tree view.



The question text is stored with the template file and is visible on select reports in Remark Quick Stats.

### 5.3.2.b Question Names

When defining an OMR region with multiple questions in the same region, you can specify individual question names for each question in the region. By using individual question names, it is easier to save data to existing databases and other file types that may already be set up with specific fields.

By default, Remark Classic OMR uses sequential region names for each question in the same region. Sequential region names consist of adding numbers sequentially onto the region name you provide in the OMR Region Properties window. For example, if you enter a region name of Question, Remark Classic OMR calls the individual question names within the region Question1, Question2, Question3, etc.

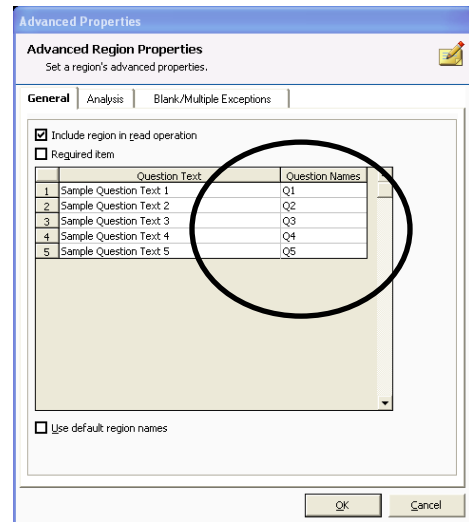
In contrast, if you use the Question Names section of the Advanced window to enter individual question names, you are able to customize the question name for each question within the region. Question names are limited to 60 characters each.

**Tip:** The following characters are not allowed in region/question names due to the problems they could cause when exporting data to certain formats:  
 . - Period

- ! - Exclamation
- ' - Single quote
- [ - Left bracket
- ] - Right bracket
- ,
- " - Double quote
- ( - Left paren
- ) - Right paren

### To insert individual question names

- 1 Create a region as defined in Section 5.2.4.
- 2 From the **Properties** window, click the **Advanced** button.
- 3 Deselect the **Use default region names** checkbox at the bottom of the window.
- 4 Click in the first grid cell under **Question Names**.
- 5 Type the desired question name in the first grid cell. Alternatively, double click in a cell, then right click and select **Paste** from the menu or press **Ctrl + V** on the keyboard to paste the contents of your Windows clipboard into the cell.
- 6 Press the **Enter** key on the keyboard or click in the next cell going down to continue adding question names (only applies to regions with more than one question).
- 7 Once you have entered all of the desired question names, click the **OK** button twice to save the changes and return to the tree view.



The question names are stored with the template file and are visible on select reports in Remark Quick Stats.

### 5.3.4 Advanced Properties: Analysis: Test Settings

Remark Classic OMR provides useful test grading features that you can customize. You decide which regions to grade and set the test points to be used for grading.

The following table lists the region types and their default grade settings:

Region Type	Grade Status	Test Type (Objective or Subjective)	Test Points
OMR	Multiple, Boolean and List: Graded	Objective	Correct: 1 Incorrect: 0 No Response: 0
	Grid, Add and Binary: Not Graded	N/A	
Input	Not Graded	N/A	N/A
Barcode	Not Graded	N/A	N/A



Questions can be designated as Objective or Subjective questions. An objective question is one where respondents choose one or more pre-defined answers on a form by darkening in a mark (e.g., bubble). These questions are typically multiple choice or true/false questions. A subjective question is one that is open ended and must be graded by a human, such as an essay or short answer question. Remark Classic OMR cannot automatically read this type of question; however, you can include points from a subjective question when grading. First, place a region on the form where the instructor can enter the appropriate amount of points earned on the subjective portion of the test. This is typically an OMR region where the instructor bubbles in the points earned. Then designate the region as a subjective item in the form template. This region must be set to the numeric data type in order to use the region as a subjective region. When setting up your answer key, enter the maximum number of subjective points that can be earned (see the Remark Quick Stats User's Guide PDF file under Start|Programs|Remark Classic OMR 4|Documentation for further details about setting up answer keys). When grading, Remark Classic OMR displays the overall, objective and subjective scores.

Extra credit is available in the Region item properties using the **All points awarded should be treated as extra credit** checkbox. This feature allows you to use Easy Grade to grade the tests and still designate a question as extra credit. When this checkbox is selected, any points awarded for the question are added to the total score (therefore it may be possible to score greater than 100%).

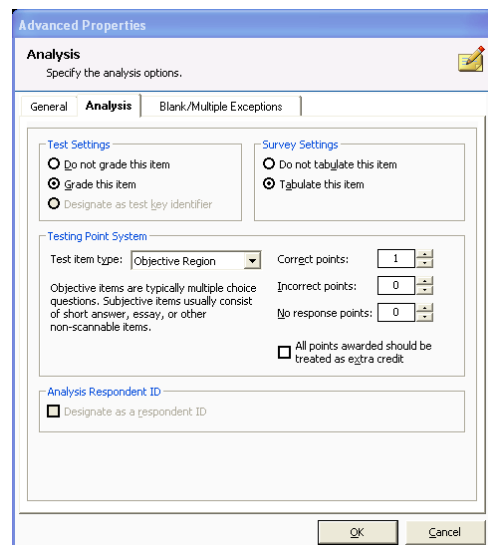
### To set grade options

- 1 Create a region as defined in Section 5.2.4.
- 2 From the **Properties** window, click the **Advanced** button.
- 3 Click the **Analysis** tab.
- 4 In the **Test Settings** section, mark the radio button for **Grade this item**.

**Note:** If grading tests and using multiple answer keys, there is a third option for **Designate as key identifier**. Use this option when creating a region that contains the test answer key version information. For example, if you distribute three versions of the test – A, B, C- you can use the **Designate as key identifier** property on the region that contains the particular test's test version (A, B or C). Remark Quick Stats can then use the region to sort the tests into their respective groups so that they are properly graded.

- 5 In the **Testing Point System** section, select the type of question: **Objective item** or **Subjective item**.
- 6 If using an **Objective item**, enter the values for **Correct points**, **Incorrect points** and **No Response points** that are appropriate for the region. You may use a negative number to subtract points for incorrect or unanswered questions if desired. You may also use decimal places.

**Note:** A single question can have multiple correct responses, which you can designate when scanning the answer key or using the Grade Wizard. However, you cannot utilize





partial credit on a per response basis (e.g., a=1 point, b=2 points, c=3 points, etc.).

- 7 If desired, mark the **All points awarded should be treated as extra credit** checkbox to mark the question as extra credit. (Note: you can also mark regions as extra credit in the Grade Wizard when grading.)
- 8 Click the **OK** button twice to save the changes and return to the tree view.

When grading tests using Easy Grade, the properties set in this window apply. They can be changed on the fly using the Grade Wizard.

### 5.3.5 Advanced Properties: Analysis: Survey Settings

Remark Classic OMR provides useful survey tabulation features that you can customize. You decide which regions to tabulate.

The following table lists the region types and their default survey settings:

Region Type	Survey Status
OMR	Multiple, Boolean and List: Tabulated Grid, Add and Binary: Not Tabulated
Input	Not Tabulated
Barcode	Not Tabulated

#### To set survey options

- 1 Create a region as defined in Section 5.2.4.
- 2 From the **Properties** window, click the **Advanced** button.
- 3 Click the **Analysis** tab.
- 4 In the **Survey Settings** section, mark the option button for **Tabulate this item**.
- 5 Click the **OK** button twice to save the changes and return to the tree view.

When tabulating surveys using Easy Survey, the properties set in this window apply. They can be changed on the fly using the Survey Wizard.

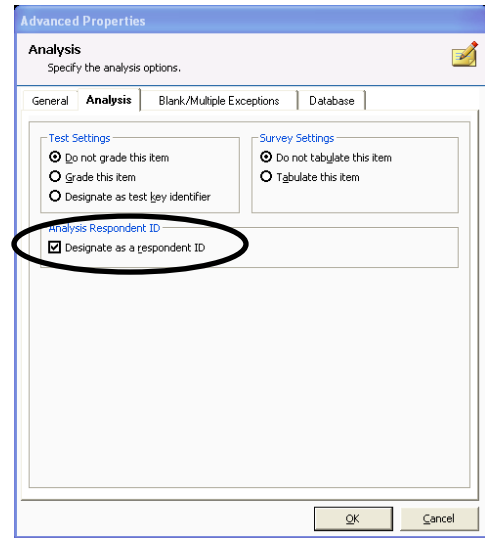
### 5.3.6 Advanced Properties: Analysis: Analysis Respondent ID

You may also set a particular region as an Analysis Respondent ID region so that it can be used as an identifier on reports. This feature is useful when you are capturing items such as ID numbers or names. When set as an Analysis Respondent ID region, the resulting reports show the information captured in the region alongside of the results. For example, if you administer a test where the students enter their ID number, the grade report shows the ID number and then that student's grade. When exporting data to some gradebook packages, you may also be required to set an Analysis Respondent ID.

**Note:** Analysis Respondent IDs are included as identifiers in the analysis, but they are not tabulated or graded. In order to set a region as an Analysis Respondent ID, make sure it is set to **Do not grade this item** and **Do not tabulate this item**.

**To set an Analysis Respondent ID**

- 1 Create a region as defined in Section 5.2.5.
- 2 From the **Properties** window, click the **Advanced** button.
- 3 Click the **Analysis** tab.
- 4 In the **Analysis Respondent ID** section, mark the checkbox for **Designate as a respondent ID**.
- 5 Click the **OK** button twice to save the changes and return to the tree view.

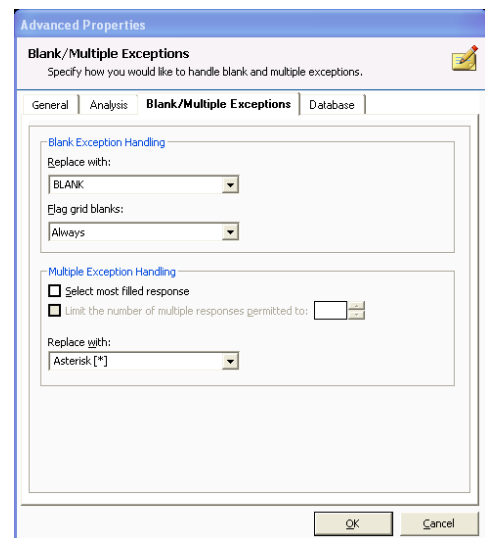


**5.3.7 Advanced Properties: Blank Responses**

You can specify how Remark Classic OMR should handle blank responses in OMR regions when processing forms and exporting data. The default setting for blank responses is to insert the word BLANK for items that are not answered. Yellow color coding is also applied to the data grid, making the blank exceptions easier to locate. You can replace the blank values on a region-by-region basis. You may choose one of the default options listed or type in a custom value.

**To set blank response settings**

- 1 Create a region as defined in Section 5.2.4.
- 2 From the **Properties** window, click the **Advanced** button.
- 3 Click the **Blank/Multiple Exceptions** tab.
- 4 In the **Blank Exception Handling** section, choose a value from the **Replace with** drop-down list or enter a unique replacement of your own. Pre-set choices include **BLANK**, **Asterisk (\*)**, **Nothing**, **Space Character**, **Tilde (~)**, and **VOID**.
- 4 You may optionally use the **Flag Blanks** setting to further refine how blank responses are handled for Grid regions. Using this setting allows you to further customize how Remark Classic OMR interprets blank responses. Grid regions are often used to capture data that vary in length, which can lead to unintended blank responses. For example, you may have respondents fill in bubbles corresponding to their name and allow for ten characters. If a name only contains five characters, the region may come up as blank simply because the respondent did not utilize all ten characters. Or you may have questions that are often left blank due to the nature of



the question (e.g., it will not apply to many respondents). In such a case, you can replace blank characters with **Nothing** and use the **Flag Blanks** parameters to further define the output. The options are as follows:

Option	Description
Always	If any character in the region is left blank, or the entire question is left blank, regardless of the replacement characters being used, the region is considered blank. Replacement characters, if used, are still utilized, but the region contains the yellow BLANK exception color.
Ignore leading/trailing	If a leading or trailing character in the region is left blank, it is ignored. This allows you to capture data smaller than the allotted region without it being considered blank. You will see whatever data is captured and the region will not contain a yellow BLANK exception color. This setting applies to Grid regions only.
Never	If any character within the region is blank, or the entire question is left blank, Remark Classic OMR ignores it. The region never appears with a yellow BLANK exception color in the data grid.
Ignore Leading	If a leading character in the region is left blank, it is ignored. This allows you to capture data smaller than the allotted region without it being considered blank. You will see whatever data is captured and the region will not contain a yellow BLANK exception color. This setting applies to Grid regions only.
Ignore Trailing	If a trailing character in the region is left blank, it is ignored. This allows you to capture data smaller than the allotted region without it being considered blank. You will see whatever data is captured and the region will not contain a yellow BLANK exception color. This setting applies to Grid regions only.

5 Click the **OK** button twice to save the changes and return to the tree view.

### 5.3.8 Advanced Properties: Multiple Responses

You can specify how Remark Classic OMR should handle blank and multiple responses in OMR regions when processing forms and exporting data. The default setting for multiple responses is to show all responses but flag the data grid cells green when more than one response is chosen and not permitted. Also by default, only one answer response is allowed. You can replace the multiple values on a region-by-region basis. You may choose one of the default options listed or type in a custom value.

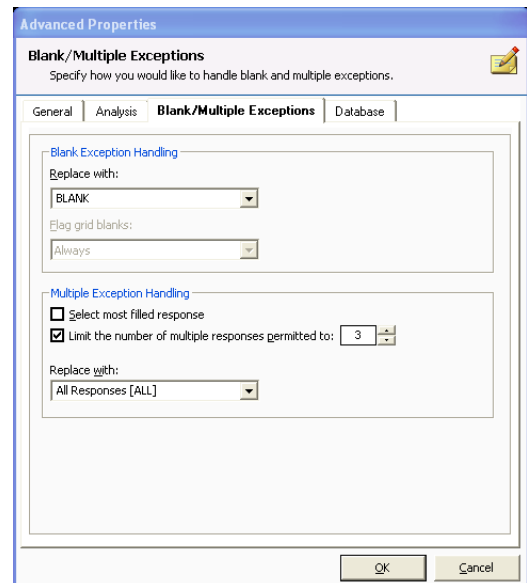
**Note:** In previous versions of Remark Classic OMR, the word MULT was output when multiple responses were found and not permitted. If you were using a previous version of Remark Classic OMR, any form templates that you convert still have the previous default replacement of **MULT**. If you would like to change old form templates to use the new **ALL** functionality, open the form template in the Template Editor and change the **Replace with** setting under **Region item properties**. Note that any new form templates you create use the **ALL** option by default.

### To set multiple response settings

- 1 Create a region as defined in Section 5.2.4.
- 2 From the **Properties** window, click the **Advanced** button.
- 3 Click the **Blank/Multiple Exceptions** tab.
- 4 In the **Multiple Response Handling** section, optionally mark the **Select most filled response** checkbox. Selecting this option forces Remark Classic OMR to select the mark it thinks is the most filled when more than one mark is detected. We do not recommend turning on this setting for most applications.

**Tip:** Use extreme caution when using the **Select most filled** option. Using this option means that Remark Classic OMR never returns a multiple exception for you to review. The software always chooses what it thinks is the most filled mark.

- 5 Optionally, decide whether you want to allow multiple responses (not allowed by default). To allow more than one response, mark the checkbox for **Limit the number of multiple responses permitted to**. Then use the box next to it to select the number allowed. You can type a number or use the up and down arrows to choose a number. If a respondent chooses more responses than allowed, the text entered in the **Replace with** box is used to signify a multiple response.
- 6 In the **Replace with** box, choose a value from the drop-down list or enter a unique replacement of your own. Pre-set choices include **ALL**, **MULT**, **Asterisk (\*)**, **Nothing**, **Space Character**, and **Tilde (~)**. If you choose the **ALL** option (this is the default setting), all chosen responses are displayed in the data grid, but it is still flagged green for review. Having all the responses expedites the cleanup process and allows you to easily change your mind about allowing multiple responses after processing forms.



**Note:** If you were using a previous version of Remark Classic OMR, any form templates that you convert still have the previous default replacement of **MULT**. If you would like to change old form templates to use the new **ALL** functionality, open the form template in the Template Editor and change the **Replace with** setting under **Region item properties**. Note that any new form templates you create use the **ALL** option by default.

- 7 Click the **OK** button twice to save the changes and return to the tree view.

### 5.3.9 Advanced Properties: Respondent Trackers

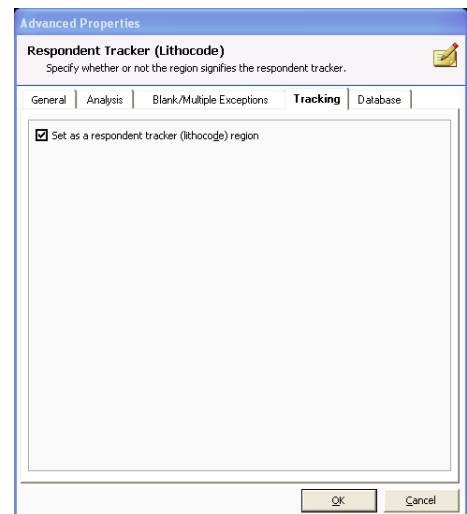
Respondent Trackers, or lithocodes, can be used during scanning to place all of one respondent's data together in a single data record. You designate a unique OMR or barcode region in the form template as your respondent tracker. Then, along with page ID marks, Remark Classic OMR matches data from the sheets scanned to their

appropriate data records. Respondent trackers can only be used on multi-sheet forms and must be used with page ID marks.

Setting up a respondent tracker has two parts. The first part is to tell Remark Classic OMR that you are using a respondent tracker in the form template properties. This step is covered in Section 5.2.3. Once you have told the software you are using a respondent tracker, and entered information about the respondent tracker region's properties, the region is created automatically for you. You have successfully set up a respondent tracker at this point. If you need to modify the respondent tracker, you may use the instructions below.

### To modify a respondent tracker

- 1 When setting up the form template, ensure you have entered the appropriate page IDs and respondent tracker information (see Section 5.2.3).
- 2 The respondent tracker region is created automatically for you. If you need to make changes to the field, continue. Otherwise, you have set up the respondent tracker field.
- 3 Open the properties for the Respondent tracker region.
- 4 If you need to make any modifications to the region's set up, do so in this window.
- 5 From the **Properties** window, click the **Advanced** button.
- 6 Click the **Respondent tracker** tab. Use the **Set as a respondent tracker (lithocode) region** checkbox to turn on or off respondent tracking on this region.
- 7 Click the **OK** button twice to return to the tree view.



### 5.3.10 Advanced Properties: Database Lookup

Remark Classic OMR has a Database Lookup feature that can: 1) verify that recognized data from a region appear in an external database, and 2) lookup and replace recognized data with additional regions from an external database. To use this feature, you link a region in the form template to an external database. As each form is scanned, Remark Classic OMR verifies that the recognized data appear in the selected database region. If the data are not present, Remark Classic OMR flags the question as a Database Lookup error for correction. Database Lookup can be used with OMR, Input and Barcode regions.

This feature is useful for validating names, identification numbers, zip codes, etc. It is also useful for pulling information you have already collected out of a database and inserting it into your processed form data. When you set up a Database Lookup region, you tell the software what region to validate, and whether to replace the output with a region from the external database and/or append additional regions from the external database.

For example, suppose you are grading tests and you have the students fill in their ID numbers on the forms being processed. You could verify the ID numbers in a database to ensure the right forms are being scanned, and then specify another value that corresponds to the ID number (e.g., a name). If the ID number is found in the database,

Remark Classic OMR automatically displays the corresponding value (student name in this case) for that ID number in the data. When you run your grade reports, they are produced with each student's name, yet you did not have to type in that information (or have students bubble it in on the form).

**To use database lookup**

- 1 Create a region as defined in Section 5.2.4.
- 2 From the **Properties** window, click the **Advanced** button.
- 3 Click the **Database** tab.
- 4 Mark the checkbox for **Use Database Lookup**.
- 5 In the **Database Selection** area, use the **Type** drop-down list to select the type of database to which you want to connect this region (e.g., Access, Excel, etc.).
- 6 Click the **Browse...** button to locate and select the database file.

**Note:** You should not move the database or change the name once the link is established. Otherwise, the link is broken. Make sure the database is in its final format and location before linking it to the form template.

- 7 Select a file and then click the **Open** button (or double click the file name).

If using an ODBC connection, perform the Steps 8-10 (you need to obtain specific information from your database administrator to complete these steps). Otherwise, skip to **Step 11**.

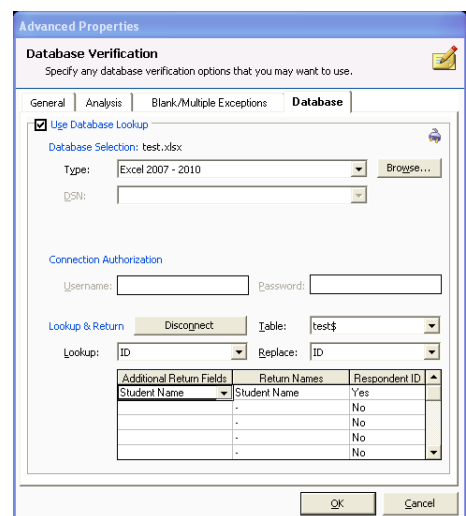
- 8 [OPTIONAL] Select your database type from the **DSN** drop-down list.
- 9 [OPTIONAL] Select the appropriate checkbox to indicate whether your database is Directory or DSN based: **Directory based** or **DSN based**.
- 10 [OPTIONAL] If your database utilizes password protection, use the **Username** and **Password** boxes to enter your login information. If the database is not password protected, you may skip this step.

- 11 In the **Lookup & Return** section, click the **Connect to Database** button to link the database to the region.

- 12 Use the **Table** drop-down list to select the table in the database containing the fields to which you are linking the region.

- 13 Use the **Lookup** drop-down list to select a field in the connected database to which you want to link this region. When the forms are processed, the respondents' answers are verified against the values in this database field. If the answer is found in the database field, Remark Classic OMR outputs the **Replace** value. If the answer is not found in the database field, Remark Classic OMR flags it for review.

- 14 Use the **Replace** drop-down list to select a field in the connected database to return when the **Lookup** region is verified. If you only want to verify data and not replace it with anything else, use the same field in both the **Lookup** and



**Replace** lists. If you want to look up the value and then replace it with a different database field's information, select the appropriate field in the **Replace** list.

- 15** If desired, select database fields from the **Additional Return Regions** list to insert additional information from the database into the data grid during scanning. You may look up a field once but return several database fields' worth of information. This is a quick and easy way to get information out of the existing database and into your scanned data. Regions are listed in the data grid in the order in which they appear in the **Additional Return Fields** list.
- 16** If desired, use the **Return Names** column to specify region names for the return regions. By default, the name is taken from the external database to which the region is connected. You may type a new name in the **Return Names** cell if desired.
- 17** Use the drop-down arrow to select **Yes** in the **Respondent ID** box to include the return region in the reports as a respondent identifier. If this setting is set to Yes, the data collected from this region is used on the appropriate reports to identify the respondent.
- 18** Click the **OK** button twice to save the changes and return to the tree view.

When you scan your filled in forms, Remark Classic OMR looks up the captured data in the database and if found, returns your Replace and Additional Return Field data. You can then filter report information based on these additional fields.

## 5.4 Additional Template Editor Features

The Remark Classic OMR Template Editor provides several other features and functions to help make it user friendly. The following features and/or functions are available:


- Copy/paste
- Drag/drop (reordering)
- Delete
- Undo/redo
- Moving regions
- Zoom
- File properties

All of these features can be accessed from the menus. Many also have toolbar buttons or can be accessed by right clicking the mouse on a node in the tree view.

### 5.4.1 Copy/Paste


When creating regions with similar attributes, using the Copy and Paste options can facilitate the form template creation process. You can copy regions on the same page or on different pages within the same form template.

#### To copy and paste a region

- 1** Activate the region(s) you want to copy by clicking within the region boundaries in the page representation area or clicking its node in the tree view.
- 2** Select the **Edit** menu and then click **Copy**, click , right click the mouse and select **Copy** or press **Ctrl+C** on the keyboard.
- 3** Highlight the node before or after where you would like the region copied.



- 4 Select the **Edit** menu and then click **Paste Before (Ctrl+B)** or **Paste After (Ctrl+V)** to place the copied node either before or after the selected node.

**Note:** You may also use the toolbar button for Paste, , or right click and choose Paste to paste the region after the highlighted node.

After pasting a region, the region appears in the page representation area of the Template Editor window over top of the original region. You then need to position the region correctly in the page representation area by dragging it with the mouse.

### 5.4.2 Drag/Drop

The drag/drop feature allows you to click a region in the tree view and drag it to another position within the tree. The order of the regions in the tree view determines the order of the regions in your data set. You may set the order of the regions on a page without regard to where the region is located on the page representation. When using drag/drop you can either move a node or copy a node.

#### To move a node using drag/drop

- 1 Select the node representing the region you would like to move.
- 2 While holding down the left mouse button, drag the region to its new desired location.
- 3 When you have reached the new location, release the mouse button. A dialog box appears, confirming whether you want to move the region to the new location.
- 4 Click the **OK** button to move the node.

**Tip:** You can press the **Shift** key on the keyboard as you drag a node to toggle between Move Before and Move After options. By pressing Shift, you can move a region before the selected region (otherwise, the region is placed after the selected region automatically).

#### To copy a region using drag/drop

- 1 Select the node representing the region you would like to copy.
- 2 While holding down the left mouse button, drag the region to its new desired location and then press the **Ctrl** key while still holding down the left mouse button.
- 3 When you have reached the new location, release the mouse button. A dialog box appears, confirming whether you want to copy the region to the new location.
- 4 Click the **OK** button.

After copying a region, the region appears in the page representation area of the Template Editor window. You then need to position the region correctly by dragging it with the mouse.


### 5.4.3 Deleting Regions

Use the Delete option to remove unwanted region definitions.

#### To delete a region

- 1 Activate the region you want to delete by clicking within the region boundaries or clicking its node in the tree view.




- 2 Select the **Edit** menu and then click **Delete**, click , right click the mouse and choose **Delete** or press **Delete** on the keyboard. You may also right click the region and choose **Delete** from the menu.


#### 5.4.4 Undo/Redo

Remark Classic OMR employs Undo and Redo in the Template Editor. Using Undo negates the last action that was performed. Using Redo repeats the last action for which undo was used.

##### To use undo

- 1 Select the **Edit** menu and then click **Undo**, click , or press **Ctrl+Z** on the keyboard to negate the previous action.

##### To use redo

- 1 Select the **Edit** menu and then click **Redo**, click , or press **Ctrl+Y** on the keyboard to repeat the previous action.

#### 5.4.5 File Properties

You may view the properties of a form template at any time by selecting the **File** menu and then clicking **Properties**. From this window you can review the form template information such as name, description, sheet information, timing marks, page IDs and respondent trackers.

### 5.5 Saving a Form Template

You may save a form template at any time. It is recommended that you save your form templates as you go in case you are interrupted.

##### To save a form template

- 1 Select the **File** menu and then click **Save**, or click , to save the region definitions.

You may also use the Save As function to save the form template under a new name.

- 2 In the **Save As** dialog box, enter a file name in the box titled **File name**.
- 3 Choose a directory location in the box titled **Save in**.
- 4 Click the **Save** button.

Form templates can only be saved with a .rco file extension.

### 5.6 Editing an Existing Form Template


You can edit previously created form templates to add or delete pages or to make changes to the region definitions or page layout.

**Note:** Changing the structure of a form template after processing a batch of forms can cause compatibility conflicts between the form template and previously saved data files. Changes to the number of questions, the

question order or the output labels will likely invalidate existing data files and Grade Wizard/Survey Wizard definition files.

Form templates from previous versions of the software can be opened in the Remark Classic OMR 4 Template Editor. The software automatically converts older form templates to the new version. Form template files are not backward compatible. Once a form template has been converted to the new version, it cannot be opened in a previous version of the software. Always make copies of form templates before converting them.

### To edit a form template

- 1 If not already running, start the **Remark Classic OMR Template Editor** program.
- 2 Select the **File** menu and then click **Open**, or click . You may also use the **Recent Files** option under the **File** menu to open files.
- 3 Select the form template you would like to edit.
- 4 Click the **Open** button.

The form template is displayed in the tree view, with the page representation area on the right.

- 5 Double click within the boundaries of any region you want to edit, or double click the node representing the region in the tree view to display the **Region Properties** window.
- 6 Make the desired changes to the region's properties and then click the **OK** button.  
**Note:** For more information about region types see the Creating Form Templates section of this chapter.
- 7 Save the form template when finished editing.

# Scanning Forms

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## 6.1 Overview

This chapter explains how to scan forms in the Remark Classic OMR Data Center. You should refer to your scanner's documentation for instructions on installing and using the scanner. You scan forms directly from a scanner connected to the computer running Remark Classic OMR. Before scanning forms, ensure your OMR scanner is connected to the computer running Remark Classic OMR and is in working order (See Chapter 4.)

The procedure for scanning forms varies based on the scanner you are using. The steps are separated in this user's guide based on whether you are using an OMR scanner (no imaging) or an OMR/Image scanner (image-enabled). See Chapter 4 for a list of supported scanners and set up information.

The following topics are covered:

- Scanning forms with an OMR scanner (Section 6.2)
- Scanning forms with an OMR/Image scanner (Section 6.3)
- Batch processing (Section 6.4)
- Overwriting data (Section 6.5)
- The Image Viewer (Section 6.6)
- Reviewing exceptions (Section 6.7)
- Respondent detection (Section 6.8)
- Reviewing duplicates (Section 6.9)
- The Graph Viewer (Section 6.10)
- The Test Import Wizard (Section 6.11)

## 6.2 Scanning Forms with an OMR Scanner

This section outlines how to scan forms using an OMR scanner, which is set up by clicking **Tools|OMR Scanner|OMR Scanner Properties**. OMR scanners do not use image capabilities. If you want to scan using imaging, please see Section 6.3.

### 6.2.1 Opening a Form Template

The Remark Classic OMR software requires a form template file for each unique form that you want to scan. This file defines all of the information needed for the software to read the form. Form templates are created in the Remark Classic OMR Template Editor, which is covered in Chapter 5 of this user's guide. Once you have a form template for your form, it can be reused as often as needed (as long as the form does not change). Please note that for most standard forms, form templates are already installed with the software. These files can typically be located in C:\Program Files\Gravic\Remark Classic OMR 4\Templates\Scantron\OMR. You only need to create a form template for your form if one does not already exist. OMR form templates have a .rco extension.

**Note:** The **OMR-Image** folder contains form templates that are used with image-enabled scanners. If using an OMR Scanner without imaging, you should not use those templates.

To begin the scanning process, open the form template file corresponding to your form in the Data Center. The Remark Classic OMR template grid window uses a spreadsheet style interface to display scanned data. Each grid column corresponds to an item or question on the form, as it was defined in the form template. If your form template contains multiple pages, each page is separated by a blue line.


**Important Note:** Form templates from previous versions of the software can be opened in the Remark Classic OMR 4 software. Once they are opened in the new version, form templates are automatically converted. Form template files are upward compatible only. Once a form template has been converted to the new version, it cannot be opened in a previous version of the software. Always make copies of form templates from previous versions before converting them.

### To access the Data Center

- 1 From the Windows **Start** menu, click **Programs|Remark Classic OMR 4|Remark Classic OMR Data Center**.

You can see a Task Pane on the left and an empty grid on the right. This grid is where your form template is opened and forms are scanned.

### To select a form template

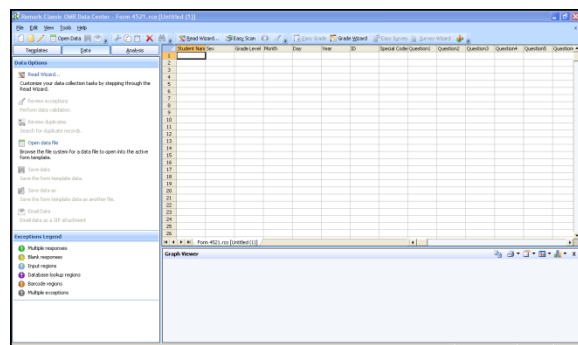
- 1 Select the **File** menu and then click **Open Form Template**, or click  , to display the **Open form template** window. Alternatively, select **Open form template** from the Task Pane.

**Note:** Form template file names have a RCO file extension.

**Tip:** You can access recently used form templates from the **File** menu or the **Task Pane**.

- 2 Use the **Look in** drop-down list to locate files on your computer or network. Select the correct form template file by clicking its name. The default directory for form templates for OMR scanners is C:\Program Files\Gravic\Remark Classic OMR 4\Templates\Scantron\OMR.
- 3 Click the **Open** button to open the form template and display the corresponding data grid window.

Once the form template is open, you may begin scanning forms. By default, when you open a form template, you see the data grid across the top of the screen and the Graph Viewer at the bottom of the data grid. The data grid is where you see the data as forms are processed. The Graph Viewer graphs the tabulation of a single question, as selected in a cell of the data grid.



## 6.2.2 The Remark Classic OMR Read Wizard for OMR Scanners

Scanning forms is handled through the Remark Classic OMR Read Wizard. When scanning forms in the Remark Classic OMR Data Center, the software reads pages directly from an OMR scanner connected to the computer. Before attempting to read any pages from the scanner, turn on your scanner, ensure it is set up in Remark Classic OMR and open the form template that corresponds to your forms. (See Chapter 4 for information about setting up your scanner.)

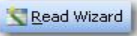
**Note:** The forms you wish to process must correspond to the selected form template.

The Read Wizard uses the scanner you have selected as the default scanner. It's possible to have a scanner set up as both an OMR Scanner and an OMR/Image Scanner. If this is the case, make sure you choose the one you want to use by default by clicking the **Tools** menu, selecting the desired scanner (**OMR Scanner**) and then clicking **Set as Default Scanner**.

The Data Center places the recognized data in the open data grid. All data obtained from reading one form appear in a single grid row. Each column of the data grid corresponds to each variable (question) defined in the form template.

**Note:** If you have not yet set up a scanner in Remark Classic OMR, select the **Tools** menu, click **OMR Scanner** and then click **OMR Scanner Properties**. Choose your scanner and any options installed on the scanner that you wish to utilize. The OMR Scanner Properties window is covered in detail in Chapter 4.

### To read pages from the scanner

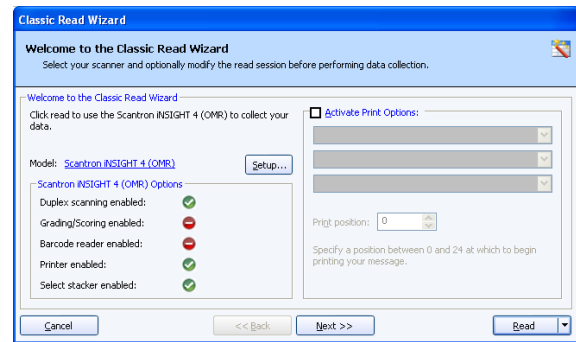
- 1 Open the correct form template. (See Section 6.2.1 Opening a Form Template.)
- 2 Place the completed forms in the scanner.
- 3 Select the **Tools** menu and then click **Read Wizard**, or click . Alternatively, you may select the **Read Wizard** link from the Task Pane.
- 4 In the **Welcome** window, you see your scanner listed. Beneath the scanner are the options you have indicated are installed on your scanner in the Scanner Properties window. The following options may be available to you depending on your scanner's capabilities:

Option	Description
Duplex scanning enabled	You may use this option if your OMR scanner has duplex capabilities, meaning it scans both sides of the sheet in one pass through the scanner. If scanning a single sided (simplex) form, you do not need to turn off duplex scanning.
Grading/Scoring enabled	You may use this option if your OMR scanner has grading capabilities built into the scanner. Grade-enabled scanners often print student scores on the forms as the forms are scanned (see your scanner manufacturer's documentation for information about scoring scanners).
Barcode reader enabled	Mark this option if your OMR scanner has a barcode reader.

Option	Description
Printer enabled	Mark this option if your OMR scanner has a printer. You can print certain items, such as score information and dates, on forms as they are scanned.
Select stacker enabled	Mark this option if your scanner has a select stacker (rejecter). When forms cannot be read, they are sent to the select stacker to be reviewed, without collecting data from them.

Items with a checkmark in a green circle are available and enabled. Items with a dash in a red circle are not enabled. If you would like to change any of these options, click the **Setup** button (remember to click OK in the **Scanner Properties** window to return to the Read Wizard). (Note you may only enable items that are installed on your OMR scanner.)

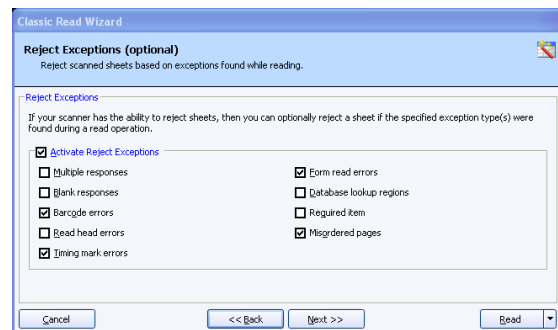
5 If your OMR scanner has a printer installed and you have indicated that you have a printer in the **Scanner Properties** window, you may optionally mark the checkbox for **Activate Print Options**. (Printer options are covered in more detail in Section 6.2.8)



- Use the drop-down list to choose an item to print or enter free form text. Note that some scanners can print a limited amount of text. Therefore, all three drop-down lists may not be enabled in order to ensure you do not select more text than can be printed with your OMR scanner.
- Certain OMR scanners can print on the last two inches of the form only. In the **Print position** box, specify where to print the information on each sheet by entering a value of 0-27 for the start position (the number varies from scanner to scanner).

6 [Optional] If your OMR scanner has a select stacker (rejecter) and you have it enabled, you may click the **Next>>** button to configure the **Reject Exceptions**. When the select stacker is enabled, forms that are not properly read are sent to the select stacker without any data being captured. You may review the forms, correct any problems and rescan them if desired. The reject options are covered in detail in Section 6.2.7.

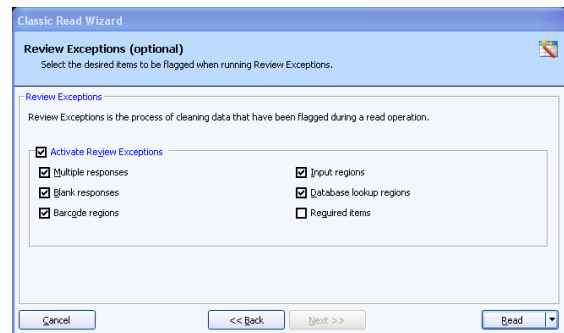
- In the **Reject Exceptions** window, specify whether to reject exception cases during the scanning process by marking the **Activate Reject Exceptions** checkbox.
- In the **Reject Exceptions Options** area, mark the checkboxes for those cases that you wish to reject during scanning.



- 7 [Optional] If you would like to configure **Review Exceptions** options, click the **Next>>** button to continue. Otherwise click the **Read** button to begin scanning pages.

Review Exceptions is a way to correct exception cases found on forms, such as blank and multiple responses (see Section 6.7 for further details about using this feature). When using Review Exceptions (as opposed to a select stacker), scanning stops but the pages are not sent to a select stacker. You are able to review the problems on the spot and make corrections, then continue scanning.

- In the **Review Exceptions** window, specify whether to review exception cases during the scanning process by marking the **Activate Review Exceptions** checkbox.
- In the **Review Exceptions Options** area, mark the checkboxes for those cases that you wish to review during scanning. The following options are available: **Multiple responses, Blank responses, Input regions, Database lookup regions, Barcode regions, or Required items.**



Reviewing Exceptions during scanning causes the software to stop scanning when it encounters any exception

cases you select. You can then make the appropriate adjustments and the scanning resumes.

**Note:** Review Exceptions can also be run after all the forms are scanned if you prefer not to stop scanning when problems occur.

- 8 Click the **Read** button to begin scanning pages.

**Note:** If desired you can click the drop-down arrow on the **Read** button and choose **Save** or **Save and Read**. If you choose one of the save options, your Read Wizard settings are saved as an Automation Wizard file (.rcez). The Automation Wizard is used to automate form processing. Please see the Remark Classic OMR Automation Wizard User's Guide.pdf file (Start|Programs|Remark Classic OMR 4|Documentation) included with your software for more information about the Automation Wizard.

Remark Classic OMR continues scanning pages until the scanner's sheetfeeder is empty.

- 9 After processing all of the pages, you are prompted to continue scanning. Click **Yes** to scan more pages or **No** to end the scanning process.

### 6.2.3 Scanning Using Default Settings with an OMR Scanner (Easy Scan)

Once you have run the Read Wizard, you may optionally scan using default settings without running the Read Wizard each time. This method is called Easy Scan and scanning occurs using the last settings specified in the Read Wizard.

**Caution:** Easy Scan is useful if you are using the same settings each time you scan. If you are uncertain about what settings exist, it is recommended that you run the Read Wizard to initiate scanning.

### To use Easy Scan

- 1 Open the correct form template. (See Section 6.2.1 Opening a Form Template.)
- 2 Select the **Tools** menu and then click **Easy Scan**, or click the Easy Scan toolbar

button  .

All pages in the scanner are scanned based on the last settings used in the Read Wizard. You then see a spreadsheet of data. Each row represents one complete form and each column represents each item (question) defined in the form template.

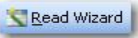
### 6.2.4 Scanning Multiple Sheet Forms Without Page ID Marks Using an OMR Scanner

Page ID marks are a pre-printed sequence of marks on an OMR form that when taken together produce a unique ID for the sheet. If you do not have page ID marks on your forms, Remark Classic OMR cannot discern whether the forms are being scanned in proper sheet order. You must read the forms in proper sheet order so that Remark Classic OMR can process the sheets correctly (e.g., sheet one, sheet two, sheet three, etc.). Follow the directions above for scanning forms, ensuring the forms are in the correct sequential order.

### 6.2.5 Scanning Multiple Sheet Forms with Page ID Marks Using an OMR Scanner

If you have page ID marks on a form, Remark Classic OMR uses the page ID marks to know whether the correct sheet of the form is being processed. If the sheets are out of order, they are flagged with an error message. The page ID marks act as a sheet identifier. When you create a form template with page ID marks, you specify the location of the marks on the form so that Remark Classic OMR can identify the various sheets of each form that is scanned. In order to recognize different sheets within one form, the sheets must have different page ID marks. If the page ID marks are identical from sheet to sheet, Remark Classic OMR is able to tell of you are scanning the correct form, but it is not able to differentiate sheets within that form. In addition, you must keep all of the sheets belonging to one respondent together, unless you are also using respondent trackers (see section 6.3.4 for information about respondent trackers).

#### To read multiple sheet forms with page ID marks

- 1 Open the correct form template. (See Section 6.2.1 Opening a Form Template.)
- 2 Place the completed forms in the scanner.
- 3 Select the **Tools** menu and then click **Read Wizard**, or click  . Alternatively, you may select the **Read Wizard** link from the Task Pane.
- 4 In the **Welcome** window, your scanner is listed. Beneath the scanner are the options you have indicated are installed on your scanner in the **Scanner Properties** window. If you would like to change any of these options, click the **Setup** button.
- 5 [Optional] If your OMR scanner has a printer installed and you have indicated that you have a printer in the Scanner Properties window, you may optionally mark the checkbox for **Activate Print Options**. (See Section 6.2.8 for detailed information about printing.)
- 6 [Optional] If your OMR scanner has a select stacker (rejecter) and you have it enabled, you may click the **Next>>** button to configure the **Reject Exceptions**. Otherwise click the **Read** button to begin scanning pages. When the select stacker is enabled, forms that are not properly read are sent to the select stacker without any



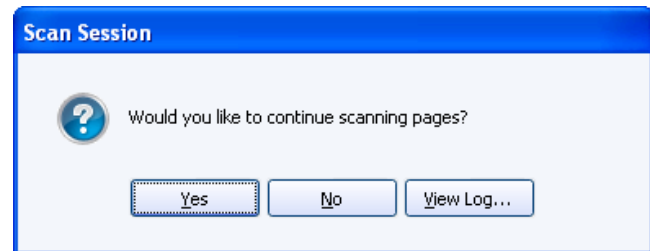
data being captured. You may review the forms, correct any problems and rescan them if desired. Please see Section 6.2.7 for detailed information about using a select stacker.

- 7 [Optional] If you would like to configure **Review Exceptions** options, click the **Next>>** button to continue. Otherwise click the **Read** button to begin scanning pages. Review Exceptions is a way to correct exception cases found on forms, such as blank and multiple responses (see Section 6.7 Review Exceptions for further details about using this feature).

**Note:** Review Exceptions can also be run after all the forms are scanned if you prefer not to stop scanning when problems occur.

- 8 Click the **Read** button to begin scanning pages.

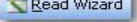
Remark Classic OMR reads forms until it cannot interpret the page ID mark or until all pages in the scanner are scanned. The software alerts you to an incorrect sheet, at which time you have several options, depending on how you are set up. If using a select stacker and rejecting misordered pages and form read errors, any sheets that are scanned out of order are simply sent to the select stacker. Upon scanning completion, you can view a log of showing why sheets were rejected. If you are not using a select stacker, you receive a message that the sheet cannot be identified and when you click the OK button, you can decide whether to continue scanning. In either case, you can remove the sheet and replace it with the correct sheet and then click **Yes**. Or, you can remove the sheet and then move onto the next sheet by simply clicking **Yes**. To stop scanning all together, select **No**. To view the reject log, click **View Log...** (The reject log can also be accessed any time by clicking **Tools|View Reject Log**).



## 6.2.6 Reading Multiple Sheet Forms with Respondent Trackers Using an OMR Scanner

Page ID marks alone act as sheet identifiers, but with the addition of respondent trackers (lithocodes), you can also keep respondents' data together. A respondent tracker acts as a respondent ID and must be used in conjunction with page ID marks, which act as sheet identifiers, as explained in the previous section. If you have respondent trackers and page ID marks on your form, you can scan forms in any order and Remark Classic OMR is able to match sheets using the page ID marks and respondents to the appropriate record using the respondent trackers. Respondent trackers can be OMR or barcode regions. Setting up respondent trackers in your form template is covered in Chapter 5.

- 1 Open the correct form template. (See Section 6.2.1 Opening a Form Template.)
- 2 Place the completed forms in the scanner.

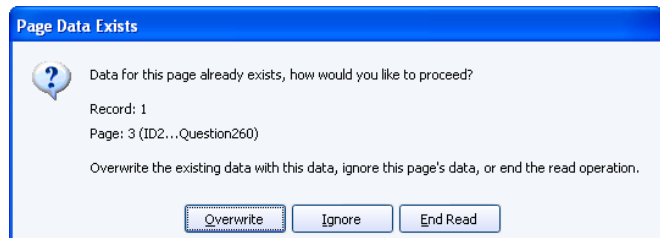
- 3 Select the **Tools** menu and then click **Read Wizard**, or click . Alternatively, you may select the **Read Wizard** link from the Task Pane.
- 4 In the **Welcome** window, your scanner is listed. Beneath the scanner are the options you have indicated are installed on your scanner in the **Scanner Properties** window. If you would like to change any of these options, click the **Setup** button.
- 5 Click the **Next>>** button to continue.
- 6 [Optional] If your OMR scanner has a printer installed and you have indicated that you have a printer in the Scanner Properties window, you may optionally mark the checkbox for **Activate Print Options**. (See Section 6.2.8 for detailed information about printing.)
- 7 [Optional] If your OMR scanner has a select stacker (rejecter) and you have it enabled, you may click the **Next>>** button to configure the **Reject Exceptions**. Otherwise click the **Read** button to begin scanning pages. When the select stacker is enabled, forms that are not properly read are sent to the select stacker without any data being captured. You may review the forms, correct any problems and rescan them if desired. Please see Section 6.2.7 for detailed information about using a select stacker.
- 8 [Optional] If you would like to configure **Review Exceptions** options, click the **Next>>** button to continue. Otherwise click the **Read** button to begin scanning pages. Review Exceptions is a way to correct exception cases found on forms, such as blank and multiple responses (see Section 6.7 Review Exceptions for further details about using this feature).

**Note:** Review Exceptions can also be run after all the forms are scanned if you prefer not to stop scanning when problems occur.

- 9 Click the **Read** button to begin scanning pages.

Remark Classic OMR scans the forms and matches the sheets and records together. The software uses the page ID mark to know what sheet number is being scanned and the respondent

tracker to determine the record to which the scanned data belongs. If a duplicate page is scanned, a message appears letting you know that data for the page already exists. You may click **Overwrite** to overwrite the existing data record, **Ignore** to ignore the new page's data (discarding it) and leave the original data intact, or **End Read** to stop scanning all together. Note that if you overwrite, you may be prompted for each page within a single record.



### 6.2.7 Using an OMR Scanner's Select Stacker


Some OMR scanners have a select stacker (also called reject stacker or reject hopper) that is used to collect forms during scanning that contain errors. If your OMR scanner includes a supported select stacker, you must select it in the OMR Scanner Properties window in order to use it. The following items can be rejected during scanning:

Option	Description
Multiple responses	Sends sheets to the select stacker if multiple responses are marked but not allowed in the form template.
Blank responses	Sends sheets to the select stacker if items are left blank.
Barcode errors	Sends sheets to the select stacker if the barcode cannot be read.
Read head errors	Sends sheets to the select stacker if the read head test fails. A read head test is only performed if the read head test checkbox is turned on in the form template properties.
Timing mark errors	Sends sheets to the select stacker if the timing marks on the form cannot be read. This type of error could be the result of choosing the wrong form template file, entering the wrong amount of timing marks for the form in the form template's properties or a skewed form.
Form read errors	Sends sheets to the select stacker if form errors occur. Examples of form read errors include when page IDs cannot be identified or when the timing marks cannot be properly read (and you are not already rejecting on them).
Database lookup regions	Sends sheets to the select stacker if the database lookup region cannot be recognized.
Required items	Sends sheets to the select stacker if an item marked as required has an error (e.g., is left blank or has multiple marks).
Misordered pages	Sends sheets to the select stacker if pages are read out of order and you are not using respondent trackers (which allow scanning of respondents' pages out of order). This feature is useful if using page identifiers and you want to reject any pages that are scanned out of order.

### To select the reject stacker option

- 1 Select the **Tools** menu and then click **OMR Scanner Properties**.
- 2 After selecting your OMR scanner, mark the checkbox for **Select Stacker Installed**.
- 3 Click the **OK** button to save the changes.

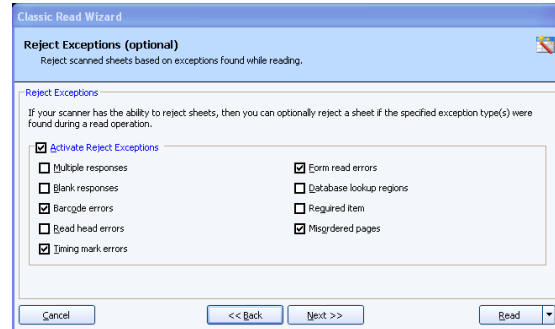
Once you have selected the **Select Stacker Installed** option in the software, you may read forms and specify what types of errors you want to apply to the select stacker.

- 4 Open the correct form template. (See Section 6.2.1 Opening a Form Template.)
- 5 Place the completed forms in the scanner.
- 6 Select the **Tools** menu and then click **Read Wizard**, or click . Alternatively, you may select the **Read Wizard** link from the Task Pane.
- 7 In the **Welcome** window, your scanner is listed. Beneath the scanner are the options you have indicated are installed on your scanner in the Scanner Properties window. If you would like to change any of these options, click the Setup button.
- 8 [Optional] If your OMR scanner has a printer installed and you have indicated that you have a printer in the OMR Scanner Properties window, you may optionally mark

the checkbox for **Activate Print Options**. See Section 6.2.8 for detailed information about printing on forms.

9 Click the **Next>>** button to continue.

10 In the **Activate Reject Exceptions** window, specify whether to reject exceptions by selecting or deselecting the **Activate Reject Exceptions** checkbox. Then choose the options that will trigger an exception: **multiple responses, blank responses, barcode errors, read head exceptions, timing mark errors, form read errors, database verification errors, required item errors** or **misordered pages** (applicable if using sheet identifiers and/or respondent trackers).



11 [Optional] If you would like to configure **Review Exceptions** options, click the **Next>>** button to continue. Otherwise click the **Read** button to begin scanning pages. Review Exceptions is a way to correct exception cases found on forms, such as blank and multiple responses (see Section 6.7 Review Exceptions for further details about using this feature).

**Note:** Review Exceptions can also be run after all the forms are processed if you prefer not to stop processing when problems occur.

12 Click the **Read** button to begin scanning pages.

During scanning, any forms that contain the specified reject options are sent to the reject stacker. A log is kept of each form that is sent to the reject stacker, explaining why it was rejected. When you finish scanning forms, you have an option to view the log in the dialog that appears at the end of each scanning session. You may also select the **Tools** menu and then click **View Reject Log** to view the log file.

## 6.2.8 Using an OMR Scanner's Printer

Some OMR scanners have a printer installed that allows you to print specific information on each form as it is scanned. The printer can be used to print items such as a form number, date, field on the form (e.g., an ID field), etc.

The following items can be printed on the forms:

- Time Stamp
- Date Stamp
- Time and Date Stamp
- Sheet Number
- Record Number
- Sequence Number
- Record and Sheet Number
- Any Field in the Template
- Customized Text

If your OMR scanner contains a supported printer, you must select it in the OMR Scanner properties window in order to use it.

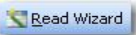
### To select the printer option

1 Select the **Tools** menu and then click **OMR Scanner Properties**.

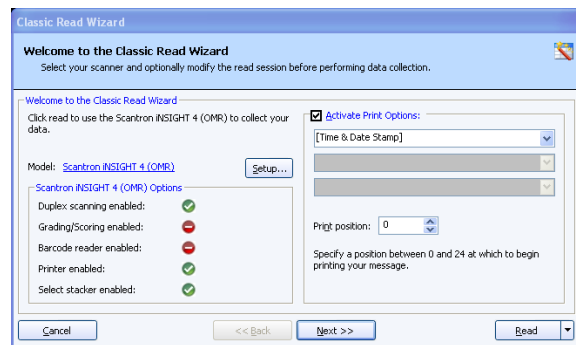
- 2 After selecting your OMR scanner, mark the checkbox for **Printer Option Installed**.
- 3 Click the **OK** button to save the changes.

Once you have selected **Printer Option Installed** in the software, you may select what to print when you begin reading forms.

### To select print options

- 1 Open the correct form template. (See Section 6.2.1 Opening a Form Template.)
- 2 Place the completed forms in the scanner.
- 3 Select the **Tools** menu and then click **Read Wizard**, or click . Alternatively, you may select the **Read Wizard** link from the Task Pane.
- 4 In the **Welcome** window, your scanner is listed. Beneath the scanner are the options you have indicated are installed on your scanner in the Scanner Properties window. If you would like to change any of these options, click the **Setup** button.
- 5 If your OMR scanner has a printer installed and you have indicated that you have a printer in the OMR Scanner Properties window, you may optionally mark the checkbox for **Activate Print Options**.
  - Use the drop-down list to choose an item to print or enter free form text. Note that some scanners can print a limited amount of text. Therefore, all three drop-down lists may not be enabled in order to ensure you do not select more items than can be printed with your OMR scanner.
  - For Scantron OMR scanners only: Scantron OMR scanners can print on the last two inches of the form only. In the **Print position** box, specify where to print the information on each sheet by entering a value of 0-27 for the start position.
- 6 [Optional] If your OMR scanner has a select stacker (rejecter) and you have it enabled, you may click the **Next>>** button to configure the Reject Exceptions. Otherwise click the Read button to begin scanning pages. When the select stacker is enabled, forms that are not properly read are sent to the select stacker without any data being captured. You may review the forms, correct any problems and rescan them if desired. Please see Section 6.2.8 for detailed information about using a select stacker.
- 7 [Optional] If you would like to configure Review Exceptions options, click the **Next>>** button to continue. Otherwise click the Read button to begin scanning pages. Review Exceptions is a way to correct exception cases found on forms, such as blank and multiple responses (see Section 6.7 Review Exceptions for further details about using this feature).
 

**Note:** Review Exceptions can also be run after all the forms are scanned if you prefer not to stop scanning when problems occur.
- 8 Click the **Read** button to begin scanning pages.



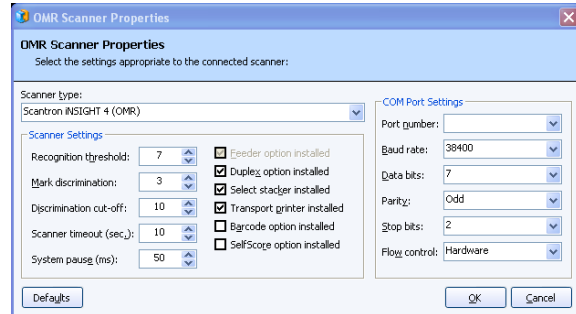
As the forms are scanned, the item or items you selected to print are printed on the forms.

## 6.2.9 Using Grade and Print with an OMR Scanner

Remark Classic OMR allows you to print grade information on forms as they are scanned. Your OMR scanner must have a printer in order to perform this task. As each form is scanned, you may print the Grade, Total Score or Percent Score on the forms. You must scan the answer key first, then the forms you wish to have graded. Remark Classic OMR uses this answer key to produce a grade for the remaining forms as they are scanned.

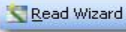
### To select the printer option

- 1 Select the **Tools** menu and then click **OMR Scanner Properties**.
- 2 After selecting your OMR scanner, mark the checkbox for **Transport Printer Installed**.
- 3 Click the **OK** button to save the changes.

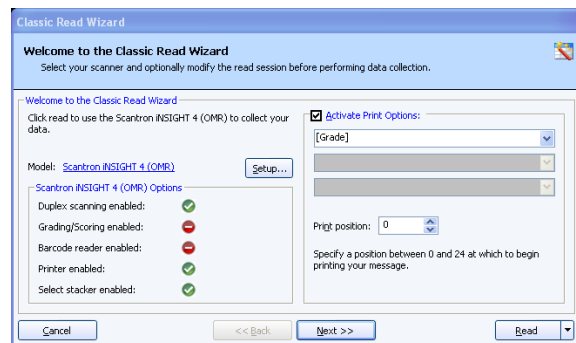


Once you have selected **Transport Printer Installed** in the software, you may select what to print when you begin reading forms.

### To use Grade and Print

- 1 Open the correct form template. (See Section 6.2.1 Opening a Form Template.)
- 2 Place the completed forms in the scanner.
- 3 Select the **Tools** menu and then click **Read Wizard**, or click . Alternatively, you may select the **Read Wizard** link from the Task Pane.
- 4 In the **Welcome** window, your scanner is listed. Beneath the scanner are the options you have indicated are installed on your scanner in the Scanner Properties window. If you would like to change any of these options, click the **Setup** button.

- 5 If your OMR scanner has a printer installed and you have indicated that you have a printer in the OMR Scanner Properties window, you may optionally mark the checkbox for **Activate Print Options**.



- Use the drop-down list to choose the grade item to print: **Grade**, **Total Score** or **Percent Score**. Note that some scanners can print a limited amount of text. Therefore, all three drop-down lists may not be enabled in order to ensure you do not select more items than can be printed with your OMR scanner.
  - For Scantron OMR scanners only: Scantron OMR scanners can print on the last two inches of the form only. In the **Print position** box, specify where to print the information on each sheet by entering a value of 0-27 for the start position.
- 6 [Optional] If your OMR scanner has a select stacker (rejecter) and you have it enabled, you may click the **Next>>** button to configure the Reject Exceptions.

Otherwise click the Read button to begin scanning pages. When the select stacker is enabled, forms that are not properly read are sent to the select stacker without any data being captured. You may review the forms, correct any problems and rescan them if desired. Please see Section 6.2.8 for detailed information about using a select stacker.

- 7 [Optional] If you would like to configure Review Exceptions options, click the **Next>>** button to continue. Otherwise click the Read button to begin scanning pages. Review Exceptions is a way to correct exception cases found on forms, such as blank and multiple responses (see Section 6.7 Review Exceptions for further details about using this feature).

**Note:** Review Exceptions can also be run after all the forms are scanned if you prefer not to stop scanning when problems occur.

- 8 Click the **Read** button to begin scanning pages.

As the forms are scanned, the item or items you selected to print are printed on the forms.

## 6.3 Scanning Forms with an OMR/Image Scanner

This section outlines how to scan forms using an OMR/Image scanner, which is set up by clicking **Tools|OMR/Image Scanner|OMR/Image Properties**. OMR/Image scanners have image capabilities, meaning that they capture an image of each sheet as it is scanned. You can archive the images and you can use the images to perform Review Exceptions when cleaning the data. This section is written with the assumption that you have an image-enabled scanner and want to capture images of each sheet as it is scanned. Please see Chapter 4 for scanner installation instructions.

### 6.3.1 Opening a Form Template

The Remark Classic OMR software requires a form template file for each unique form that you want to scan. This file defines all of the information needed for the software to read the form. Once you have a form template for your form, it can be reused as often as needed (as long as the form does not change). Please note that to use image based scanning, you must select one of the standard forms templates installed with the software. These files are located in C:\Program Files\Gravic\Remark Classic OMR 4\Templates\Scantron\OMR-Image by default. These templates have a .rst extension. Each form template has a corresponding ScanTools (.SDS) file and background .TIF image files. You may not rename or alter the .rst form templates. If you need to edit a form template or require a custom form template, please contact Scantron for assistance.

**Note:** Certain scanners can be set up as either an OMR scanner or OMR/Image scanner. If you set up your scanner as an OMR/Image scanner you may only use RST templates, even if you are not capturing images. We strongly recommend setting up your scanner as an OMR scanner (not OMR/Image) if you are not capturing form images. Please see Chapter 4 for detailed information about the two ways to set up a scanner.

To begin the scanning process, open the form template file (.rst) corresponding to your form in the Data Center. The Remark Classic OMR template grid window uses a spreadsheet style interface to display scanned data. Each grid column corresponds to an item or question on the form, as it was defined in the form template. If your form template contains multiple pages, each page is separated by a blue line.




### To access the Data Center

- 1 From the Windows **Start** menu, click **Programs|Remark Classic OMR 4|Remark Classic OMR Data Center**.

You can see a Task Pane on the left and an empty grid on the right. This grid is where your form template is opened and forms are scanned.

### To select a form template


- 1 Select the **File** menu and then click **Open Form Template**, or click  , to display the **Open form template** window. Alternatively, select **Open form template** from the Task Pane.

**Note:** Form template file names must have a RST file extension.

**Tip:** You can access recently used form templates from the File menu or the Task Pane.

- 2 Use the **Look in** drop-down list to locate files on your computer or network. By default the files are stored in C:\Program Files\Gravic\Remark Classic OMR 4\Templates\Scantron\OMR-Image. (Do not use the templates in C:\Program Files\Gravic\Remark Classic OMR 4\Templates\Scantron\OMR if you want to use imaging.) Select the correct form template file by clicking its name.
- 3 Click the **Open** button to open the form template and display the corresponding data grid window.

Once the form template is open, you may begin scanning forms. By default, when you open a form template, you see the data grid across the top of the screen and the Image Viewer and Graph Viewer at the bottom of the data grid. The data grid is where you see the data as forms are processed. The Image Viewer displays an image of the form as it is processed. If you click within a data grid cell, the Image Viewer moves to that place on the corresponding image. (Note: If you have the **Zoom to Region on Selection**

toolbar button enabled, , the Image Viewer also zooms in on the selected region.) The Graph Viewer graphs the tabulation of a single question, as selected in a cell of the data grid.

## 6.3.2 The Remark Classic OMR Read Wizard for OMR/Image Scanners

Scanning forms is handled through the Remark Classic OMR Read Wizard. When scanning forms in the Remark Classic OMR Data Center, the software reads pages directly from an OMR scanner connected to the computer. Before attempting to read any pages from the scanner, turn on your scanner, install the driver if necessary, ensure it is set up in Remark Classic OMR and open the form template that corresponds to your forms. (See Chapter 4 for information about setting up your scanner.)

**Note:** The forms you wish to process must correspond to the selected form template.

The Read Wizard uses the scanner you have selected as the default scanner. It is possible to have a scanner set up as both an OMR Scanner and an OMR/Image Scanner. If this is the case, make sure you choose the one you want to use by default by clicking the **Tools** menu, selecting the desired scanner (**OMR** or **OMR/Image**) and then clicking **Set as Default Scanner**. For image-enabled scanners, you want to set the

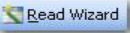


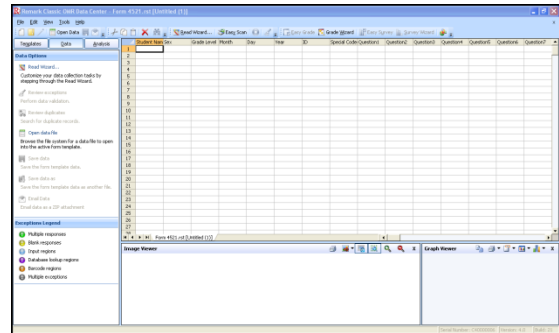
**OMR/Image** scanner as the default and ensure you turn on **Enable imaging** in the Read Wizard.

The Data Center places the recognized data in the open data grid. All data obtained from reading one form appear in a single grid row. Each column of the data grid corresponds to each variable (question) defined in the form template.

**Note:** If you have not yet set up a scanner in Remark Classic OMR, select the **Tools** menu, click **OMR/Image Scanner** and then click **OMR/Image Scanner Properties**. Choose your scanner and any options installed on the scanner that you wish to utilize. The OMR/Image Scanner Properties window is covered in detail in Chapter 4.

### To read pages from the scanner

- 1 Open the correct form template. Only open forms with a .RST extension. These forms are located by default in C:\Program Files\Gravic\Remark Classic OMR 4\Templates\Scantron\OMR-Image. (See Section 6.3.1 Opening a Form Template.)
- 2 Place the completed forms in the scanner.
- 3 Select the **Tools** menu and then click **Read Wizard**, or click . Alternatively, you may select the **Read Wizard** link from the Task Pane.
- 4 In the **Welcome** window, your scanner is listed. Beneath the scanner are the options you have indicated are installed on your scanner in the Scanner Properties window. The following options may be available to you depending on your scanner's capabilities:

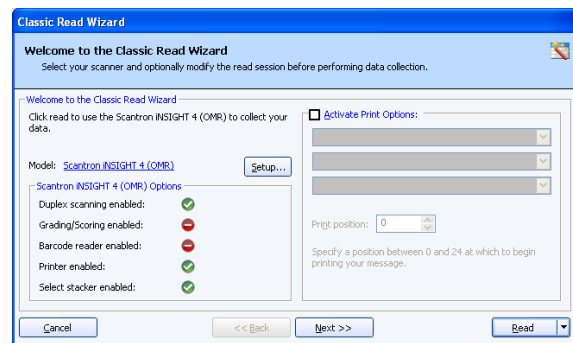


Option	Description
Enable imaging	Mark this checkbox if your scanner has imaging capabilities and you want to capture images of each sheet as it is scanned. Note that when setting up an OMR/Image scanner that has imaging capabilities, this checkbox is turned on by default.
Duplex scanning enabled	You may use this option if your OMR/Image scanner has duplex capabilities, meaning it scans both sides of the sheet in one pass through the scanner. If scanning a single sided (simplex) form, you do not need to turn off duplex scanning.
Grading/Scoring enabled	You may use this option if your OMR/Image scanner has grading capabilities built into the scanner. Grade-enabled scanners often print student scores on the forms as the forms are scanned (see your scanner manufacturer's documentation for information about scoring scanners).
Barcode reader enabled	Mark this option if your OMR/Image scanner has a barcode reader.

Option	Description
Printer enabled	Mark this option if your OMR/Image scanner has a printer. You can print certain items, such as score information and dates, on forms as they are scanned.
Select stacker enabled	Mark this option if your OMR/Image scanner has a select stacker (rejecter). When forms cannot be read, they are sent to the select stacker to be reviewed, without collecting data from them.

Items with a checkmark in a green circle are available and enabled. Items with a dash in a red circle are not enabled. If you would like to change any of these options, click the **Setup** button (remember to click OK in the **Scanner Properties** window to return to the Read Wizard). (Note you may only enable items that are installed on your OMR/Image scanner.)

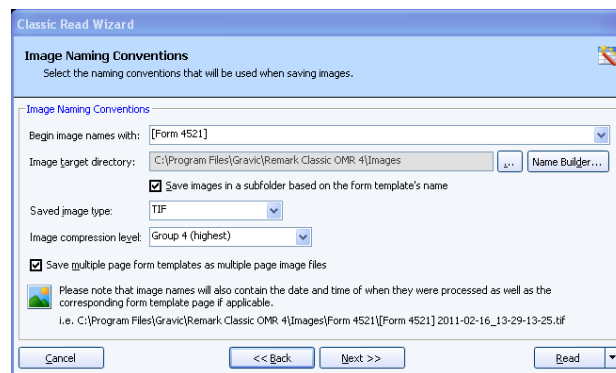
- To ensure you are capturing images of scanned sheets, make sure the **Imaging enabled** checkbox is selected.
- If your OMR/Image scanner has a printer installed and you have indicated that you have a printer in the **Scanner Properties** window, you may optionally mark the checkbox for **Activate Print Options**. (Printer options are covered in more detail in Section 6.3.8.)



- Use the drop-down list to choose an item to print or enter free form text. Note that some scanners can print a limited amount of text. Therefore, all three drop-down lists may not be enabled in order to ensure you do not select more text than can be printed with your OMR scanner.
- Certain OMR scanners can print on the last two inches of the form only. In the **Print position** box, specify where to print the information on each sheet by entering a value of 0-27 for the start position (the number varies from scanner to scanner).

- Click the **Next>>** button to continue.

- The **Image Naming Conventions** window appears, which allows you to specify options about the images that are automatically stored each time you scan forms. In the **Begin image names with** box, enter a file base name that the software can use to name the images stored for this form. The default base name is the form template name; however, you may use any name you like. We suggest using something that identifies to you that the images belong to a certain form. The images that are stored all begin with this base name and then have



the page number (if scanning a multi-page form), date and time appended to them to keep track of the various images. You may optionally choose a region from the form template to use as the base name. The value that is collected from the form for the specified region is used as the base name for the corresponding stored image. For example, if scanning student tests you could use a Student ID region to name the resulting image files by student. If you leave the **Begin image names with** option blank, your images only have the page number (if applicable), date and time as the name of each image.

- 9 In the **Image target directory** box, click the ellipsis (...) button to select a location in which to store the images for this form. You may use the default directory for images or select a different directory on your computer, external drive or network.

**Note:** Choose the image location carefully. The images should remain in this location once the data is saved using the RMK format if you want to retain the link between the processed data and each image file. This link allows you to view the forms on screen as you click through the data grid, making it easy to correct exceptions in your data. Therefore, you should plan ahead on how you will store these images when the forms are processed.

**Tip:** If you are sharing files with other Remark Office OMR users, you may wish to save the image files on a shared network drive that all users have access to in the same manner (e.g., through a mapped network drive).

- 10 Mark the checkbox for **Save images in a subfolder based on the form template's name** to have the Data Center automatically create a folder in which to store these images. The folder name is the name of the form template and the folder is created in the directory you have selected in the **Image target directory** box.

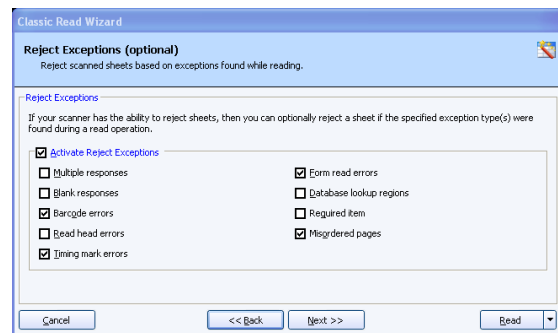
**Tip:** We recommend using the **Save images in a subfolder based on the form template's name** feature for easier organization of image files. Use of this feature keeps all images associated with each form template in one folder for easy access. The unique date and time portion of the image names prevents images from being overwritten.

- 11 [OPTIONAL] If desired, click the **Name Builder...** button to further customize the stored image names and locations.

- In the **Image Base Name** area, you may choose to add a region from the processed data to the image base name. Choose the region from the drop-down list and then click the **Add** button. If you already added a region in Step 8, the **Name Builder** allows you to add additional regions. For example, if processing tests, you could add a Student ID that is being collected from the form so that your processed images all have the Student ID number in them.
- In the **Image Target Directory** area, you may choose to add a region from the processed data to the folder structure that holds the processed images. Choose the region from the drop-down list and then click the **Add** button. For example, if processing tests, you could add a Test ID that is being collected from the form so that each student's form images are stored in a folder containing the Test ID.

- In the **Name Builder** box, click the **OK** button to return to the **Read Wizard**.
- 12** In the **Saved image type** box, select an image type to use for storing images. The choices are: **PCX/DCX, PDF, TIF** or **JPG**.
  - 13** When saving to the PDF or TIF formats, you can choose the compression level under **Image compression level: Uncompressed, Group 3, Group 3 2d, Group 4** and **LZW**. Group 4 creates the most compressed image (smallest file size that take up less space on your computer).
  - 14** Mark the checkbox for **Save multiple page form templates as multiple page image files** if you are scanning a multi-page form and would like all of the images for one complete form to be saved as one image file. Using this option creates fewer image files and is recommended.
  - 14** [Optional] If your OMR/Image scanner has a select stacker (rejecter) and you have it enabled, you may click the **Next>>** button to configure the **Reject Exceptions**. When the select stacker is enabled, forms that are not properly read are sent to the select stacker without any data being captured. You may review the forms, correct any problems and rescan them if desired. The reject options are covered in detail in Section 6.3.7.

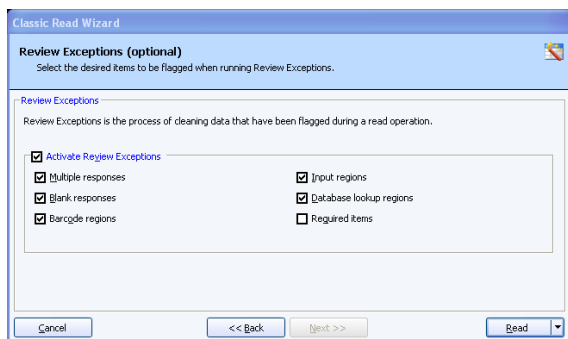
- In the **Reject Exceptions** window, specify whether to reject exception cases during the scanning process by marking the **Activate Reject Exceptions** checkbox.
- In the **Reject Exceptions Options** area, mark the checkboxes for those cases that you wish to reject during scanning, as indicated in the table above.



- 15** [Optional] If you would like to configure **Review Exceptions** options, click the **Next>>** button to continue. Otherwise click the **Read** button to begin scanning pages.

Review Exceptions is a way to correct exception cases found on forms, such as blank and multiple responses (see Section 6.7 for further details about using this feature). When using Review Exceptions (as opposed to a select stacker), scanning stops but the pages are not sent to a select stacker. You are able to review the problems on the spot and make corrections, then continue scanning.

- In the **Review Exceptions** window, specify whether to review exception cases during the scanning process by marking the **Activate Review Exceptions** checkbox.
- In the **Review Exceptions Options** area, mark the checkboxes for those cases that you wish to review during scanning. The following options are available: **Multiple responses, Blank responses, Input regions, Database lookup regions, Barcode regions, or Required items**. Reviewing Exceptions during scanning causes the software to stop scanning when it encounters any



exception cases you select. You can then make the appropriate adjustments and the scanning resumes.

**Note:** Review Exceptions can also be run after all the forms are scanned if you prefer not to stop scanning when problems occur.

**16** Click the **Read** button to begin scanning pages.

**Note:** If desired you can click the drop-down arrow on the **Read** button and choose **Save** or **Save and Read**. If you choose one of the save options, your Read Wizard settings are saved as an Automation Wizard file (.rcez). The Automation Wizard is used to automate form processing. Please see the Remark Classic OMR Automation Wizard User's Guide.pdf file (Start|Programs|Remark Classic OMR 4|Documentation) included with your software for more information about the Automation Wizard.

Remark Classic OMR continues scanning pages until the scanner's sheetfeeder is empty.


**17** After processing all of the pages, you are prompted to continue scanning. Click **Resume Scan** to scan more pages or **End Scan** to end the scanning process.

### 6.3.3 Scanning Using Default Settings with an OMR/Image Scanner (Easy Scan)

Once you have run the Read Wizard, you may optionally scan using default settings without running the Read Wizard each time. This method is called Easy Scan and scanning occurs using the last settings specified in the Read Wizard.

**Caution:** Easy Scan is useful if you are using the same settings each time you scan. If you are uncertain about what settings exist, it is recommended that you run the Read Wizard to initiate scanning.

#### To use Easy Scan

- 1** Open the correct form template. Only open forms with a .RST extension. These forms are located by default in C:\Program Files\Gravic\Remark Classic OMR 4\Templates\Scantron\OMR-Image. (See Section 6.3.1 Opening a Form Template.)
- 2** Select the **Tools** menu and then click **Easy Scan**, or click the Easy Scan toolbar button  .

All pages in the scanner are scanned based on the last settings used in the Read Wizard. You then see a spreadsheet of data. Each row represents one complete form and each column represents each item (question) defined in the form template.


### 6.3.4 Scanning Multiple Sheet Forms Without Page ID Marks Using an OMR/Image Scanner

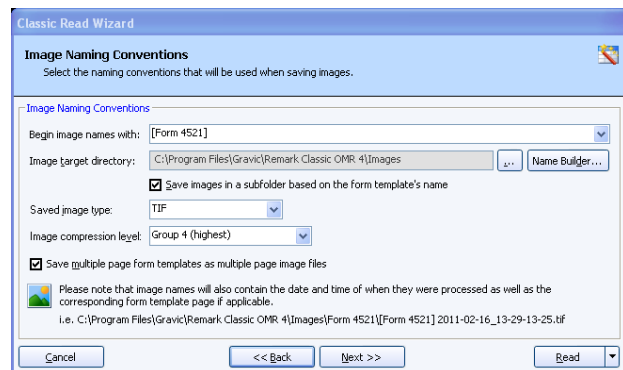
Page ID marks are a pre-printed sequence of marks on an OMR form that when taken together produce a unique ID for the sheet. If you do not have page ID marks on your forms, Remark Classic OMR cannot discern whether the forms are being scanned in proper sheet order. You must read the forms in proper sheet order so that Remark Classic OMR can process the sheets correctly (e.g., sheet one, sheet two, sheet three, etc.). Follow the directions above for scanning forms, ensuring the forms are in the correct sequential order.

### 6.3.5 Scanning Multiple Sheet Forms with Page ID Marks Using an OMR/Image Scanner

If you have page ID marks on a form, Remark Classic OMR uses the page ID marks to know whether the correct sheet of the form is being processed. If the sheets are out of order, they are flagged with an error message. The page ID marks act as a sheet identifier. When you create a form template with page ID marks, you specify the location of the marks on the form so that Remark Classic OMR can identify the various sheets of each form that is scanned. In order to recognize different sheets within one form, the sheets must have different page ID marks. If the page ID marks are identical from sheet to sheet, Remark Classic OMR is able to tell of you are scanning the correct form, but it is not able to differentiate sheets within that form. In addition, you must keep all of the sheets belonging to one respondent together, unless you are also using respondent trackers (see section 6.3.6 for information about respondent trackers).

#### To read multiple sheet forms with page ID marks

- 1 Open the correct form template. Only open forms with a .RST extension. These forms are located by default in C:\Program Files\Gravic\Remark Classic OMR 4\Templates\Scantron\OMR-Image. (See Section 6.3.1 Opening a Form Template.)
- 2 Place the completed forms in the scanner.
- 3 Select the **Tools** menu and then click **Read Wizard**, or click . Alternatively, you may select the **Read Wizard** link from the Task Pane.
- 4 In the **Welcome** window, your scanner is listed. Beneath the scanner are the options you have indicated are installed on your scanner in the **Scanner Properties** window. If you would like to change any of these options, click the **Setup** button.
- 5 To ensure you are capturing images of scanned sheets, make sure the **Imaging enabled** checkbox is selected.
- 6 [Optional] If your OMR scanner has a printer installed and you have indicated that you have a printer in the Scanner Properties window, you may optionally mark the checkbox for **Activate Print Options**. (See Section 6.3.7 for detailed information about printing.)
- 7 Click the **Next>>** button to continue.
- 8 The **Image Naming Conventions** window appears, which allows you to specify options about the images that are automatically stored each time you scan forms. In the **Begin image names with** box, enter a file base name that the software can use to name the images stored for this form. The default base name is the form template name; however, you may use any name you like. We suggest using something that identifies to you that the images belong to a certain form. The images that are stored all begin with this base name and then have the page number (if scanning a multi-page form), date and time appended to them to keep track of the various images. You may optionally choose a region from the form template to use as the base name. The value that is collected from the form for





the specified region is used as the base name for the corresponding stored image. For example, if scanning student tests you could use a Student ID region to name the resulting image files by student. If you leave the **Begin image names with** option blank, your images only have the page number (if applicable), date and time as the name of each image.

- 9 In the **Image target directory** box, click the ellipsis (...) button to select a location in which to store the images for this form. You may use the default directory for images or select a different directory on your computer, external drive or network.

**Note:** Choose the image location carefully. The images should remain in this location once the data is saved using the RMK format if you want to retain the link between the processed data and each image file. This link allows you to view the forms on screen as you click through the data grid, making it easy to correct exceptions in your data. Therefore, you should plan ahead on how you will store these images when the forms are processed.

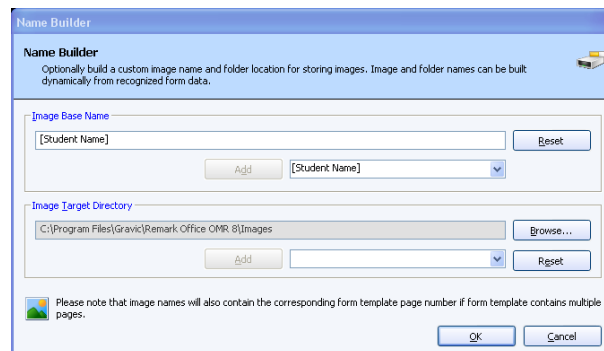
**Tip:** If you are sharing files with other Remark Office OMR users, you may wish to save the image files on a shared network drive that all users have access to in the same manner (e.g., through a mapped network drive).

- 10 Mark the checkbox for **Save images in a subfolder based on the form template's name** to have the Data Center automatically create a folder in which to store these images. The folder name is the name of the form template and the folder is created in the directory you have selected in the **Image target directory** box.

**Tip:** We recommend using the **Save images in a subfolder based on the form template's name** feature for easier organization of image files. Use of this feature keeps all images associated with each form template in one folder for easy access. The unique date and time portion of the image names prevents images from being overwritten.

- 11 [OPTIONAL] If desired, click the **Name Builder...** button to further customize the stored image names and locations.

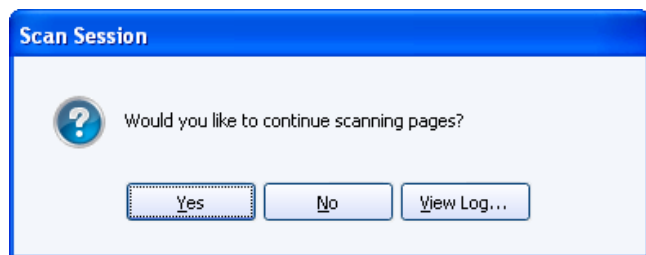
- In the **Image Base Name** area, you may choose to add a region from the processed data to the image base name. Choose the region from the drop-down list and then click the **Add** button. If you already added a region in Step 8, the **Name Builder** allows you to add additional regions. For example, if processing tests, you could add a Student ID that is being collected from the form so that your processed images all have the Student ID number in them.
- In the **Image Target Directory** area, you may choose to add a region from the processed data to the folder structure that holds the processed images. Choose the region from the drop-down list and then click the **Add** button. For example, if processing tests, you could add a Test ID that is being collected from the form so that each student's form images are stored in a folder containing the Test ID.
- In the **Name Builder** box, click the **OK** button to return to the **Read Wizard**.



- 12 In the **Saved image type** box, select an image type to use for storing images. The choices are: **PCX/DCX, PDF, TIF or JPG**.

- 13** When saving to the PDF or TIF formats, you can choose the compression level under **Image compression level: Uncompressed, Group 3, Group 3 2d, Group 4** and **LZW**. Group 4 creates the most compressed image (smallest file size that take up less space on your computer).
- 14** Mark the checkbox for **Save multiple page form templates as multiple page image files** if you are scanning a multi-page form and would like all of the images for one complete form to be saved as one image file. Using this option creates fewer image files and is recommended.
- 14** [Optional] If your OMR scanner has a select stacker (rejecter) and you have it enabled, you may click the **Next>>** button to configure the **Reject Exceptions**. Otherwise click the **Read** button to begin scanning pages. When the select stacker is enabled, forms that are not properly read are sent to the select stacker without any data being captured. You may review the forms, correct any problems and rescan them if desired. Please see Section 6.3.8 for detailed information about using a select stacker.
- 15** [Optional] If you would like to configure **Review Exceptions** options, click the **Next>>** button to continue. Otherwise click the **Read** button to begin scanning pages. Review Exceptions is a way to correct exception cases found on forms, such as blank and multiple responses (see Section 6.7 Review Exceptions for further details about using this feature).
- Note:** Review Exceptions can also be run after all the forms are scanned if you prefer not to stop scanning when problems occur.
- 16** Click the **Read** button to begin scanning pages.

Remark Classic OMR reads forms until it cannot interpret the page ID mark or until all pages in the scanner are scanned. The software alerts you to an incorrect sheet, at which time you have several options, depending on how you are set up. If using a select stacker and rejecting misordered pages and form read errors, any sheets that are scanned out of order are simply sent to the select stacker. Upon scanning completion, you can view a log of showing why sheets were rejected. If you are not using a select stacker, you receive a message that the sheet cannot be identified and when you click the OK button, you can decide whether to continue scanning. In either case, you can remove the sheet and replace it with the correct sheet and then click **Yes**. Or, you can remove the sheet and then move onto the next sheet by simply clicking **Yes**. To stop scanning all together, select **No**. To view the reject log, click **View Log...** (The reject log can also be accessed any time by clicking **Tools|View Reject Log**).

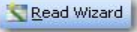


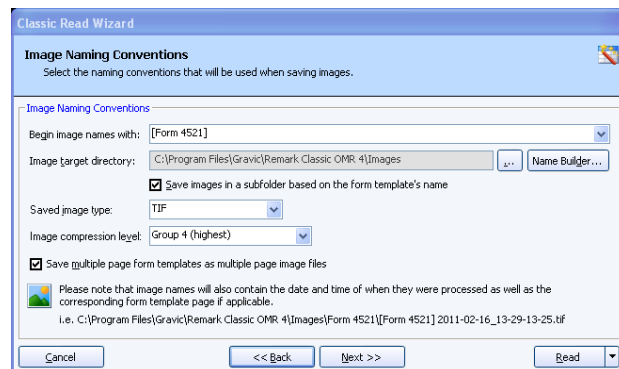
### 6.3.6 Scanning Multiple Sheet Forms with Respondent Trackers Using an OMR/Image Scanner

Page ID marks alone act as sheet identifiers, but with the addition of respondent trackers (lithocodes), you can also keep respondents' data together. A respondent



tracker acts as a respondent ID and must be used in conjunction with page ID marks, which act as sheet identifiers, as explained in the previous section. If you have respondent trackers and page ID marks on your form, you can scan forms in any order and Remark Classic OMR is able to match sheets using the page ID marks and respondents to the appropriate record using the respondent trackers. Respondent trackers can be OMR or barcode regions. Setting up respondent trackers in your form template is covered in Chapter 5.

- 1 Open the correct form template. Only open forms with a .RST extension. These forms are located by default in C:\Program Files\Gravic\Remark Classic OMR 4\Templates\Scantron\OMR-Image. (See Section 6.3.1 Opening a Form Template.)
- 2 Place the completed forms in the scanner.
- 3 Select the **Tools** menu and then click **Read Wizard**, or click . Alternatively, you may select the **Read Wizard** link from the Task Pane.
- 4 In the **Welcome** window, your scanner is listed. Beneath the scanner are the options you have indicated are installed on your scanner in the **Scanner Properties** window. If you would like to change any of these options, click the **Setup** button.
- 5 To ensure you are capturing images of scanned sheets, make sure the **Imaging enabled** checkbox is selected.
- 6 Click the **Next>>** button to continue.
- 7 [Optional] If your OMR scanner has a printer installed and you have indicated that you have a printer in the Scanner Properties window, you may optionally mark the checkbox for **Activate Print Options**. (See Section 6.3.8 for detailed information about printing.)
- 7 Click the **Next>>** button to continue.
- 8 The **Image Naming Conventions** window appears, which allows you to specify options about the images that are automatically stored each time you scan forms. In the **Begin image names with** box, enter a file base name that the software can use to name the images stored for this form. The default base name is the form template name; however, you may use any name you like. We suggest using something that identifies to you that the images belong to a certain form. The images that are stored all begin with this base name and then have the page number (if scanning a multi-page form), date and time appended to them to keep track of the various images. You may optionally choose a region from the form template to use as the base name. The value that is collected from the form for the specified region is used as the base name for the corresponding stored image. For example, if scanning student tests you could use a Student ID region to name the resulting image files by student. If you leave the **Begin image names with** option blank, your images only have the page number (if applicable), date and time as the name of each image.



- 9 In the **Image target directory** box, click the ellipsis (...) button to select a location in which to store the images for this form. You may use the default directory for images or select a different directory on your computer, external drive or network.

**Note:** Choose the image location carefully. The images should remain in this location once the data is saved using the RMK format if you want to retain the link between the processed data and each image file. This link allows you to view the forms on screen as you click through the data grid, making it easy to correct exceptions in your data. Therefore, you should plan ahead on how you will store these images when the forms are processed.

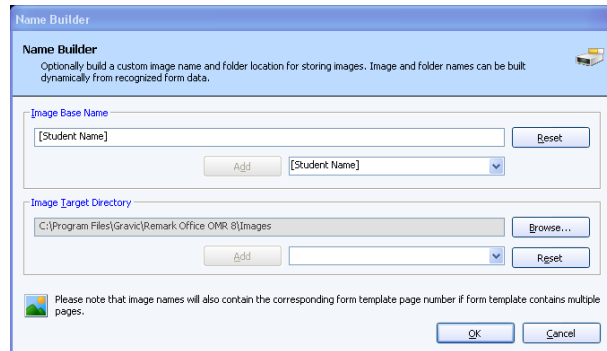
**Tip:** If you are sharing files with other Remark Office OMR users, you may wish to save the image files on a shared network drive that all users have access to in the same manner (e.g., through a mapped network drive).

- 10 Mark the checkbox for **Save images in a subfolder based on the form template's name** to have the Data Center automatically create a folder in which to store these images. The folder name is the name of the form template and the folder is created in the directory you have selected in the **Image target directory** box.

**Tip:** We recommend using the **Save images in a subfolder based on the form template's name** feature for easier organization of image files. Use of this feature keeps all images associated with each form template in one folder for easy access. The unique date and time portion of the image names prevents images from being overwritten.

- 11 [OPTIONAL] If desired, click the **Name Builder...** button to further customize the stored image names and locations.

- In the **Image Base Name** area, you may choose to add a region from the processed data to the image base name. Choose the region from the drop-down list and then click the **Add** button. If you already added a region in Step 8, the **Name Builder** allows you to add additional regions. For example, if processing tests, you could add a Student ID that is being collected from the form so that your processed images all have the Student ID number in them.



- In the **Image Target Directory** area, you may choose to add a region from the processed data to the folder structure that holds the processed images. Choose the region from the drop-down list and then click the **Add** button. For example, if processing tests, you could add a Test ID that is being collected from the form so that each student's form images are stored in a folder containing the Test ID.
- In the **Name Builder** box, click the **OK** button to return to the **Read Wizard**.

- 12 In the **Saved image type** box, select an image type to use for storing images. The choices are: **PCX/DCX, PDF, TIF** or **JPG**.

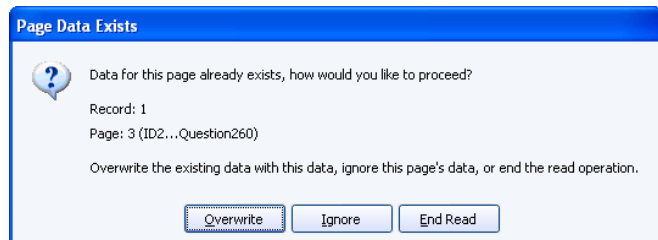
- 13 When saving to the PDF or TIF formats, you can choose the compression level under **Image compression level: Uncompressed, Group 3, Group 3 2d, Group 4** and **LZW**. Group 4 creates the most compressed image (smallest file size that take up less space on your computer).

- 14** Mark the checkbox for **Save multiple page form templates as multiple page image files** if you are scanning a multi-page form and would like all of the images for one complete form to be saved as one image file. Using this option creates fewer image files and is recommended.
- 14** [Optional] If your OMR scanner has a select stacker (rejecter) and you have it enabled, you may click the **Next>>** button to configure the **Reject Exceptions**. Otherwise click the Read button to begin scanning pages. When the select stacker is enabled, forms that are not properly read are sent to the select stacker without any data being captured. You may review the forms, correct any problems and rescan them if desired. Please see Section 6.3.7 for detailed information about using a select stacker.
- 15** [Optional] If you would like to configure **Review Exceptions** options, click the **Next>>** button to continue. Otherwise click the **Read** button to begin scanning pages. Review Exceptions is a way to correct exception cases found on forms, such as blank and multiple responses (see Section 6.7 Review Exceptions for further details about using this feature).

**Note:** Review Exceptions can also be run after all the forms are scanned if you prefer not to stop scanning when problems occur.

- 16** Click the **Read** button to begin scanning pages.

Remark Classic OMR scans the forms and matches the sheets and records together. The software uses the page ID mark to know what sheet number is being scanned and the respondent tracker to determine the record to which the scanned data belongs. If a duplicate page is scanned, a message appears letting you know that data for the page already exists. You may click **Overwrite** to overwrite the existing data record, **Ignore** to ignore the new page's data (discarding it) and leave the original data intact, or **End Read** to stop scanning all together. Note that if you overwrite, you may be prompted for each page within a single record.



### 6.3.7 Using an OMR/Image Scanner's Select Stacker

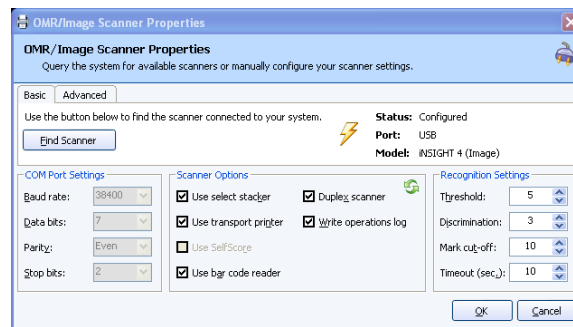
Some OMR/Image scanners have a select stacker (also called reject stacker or reject hopper) that is used to collect forms during scanning that contain errors. If your OMR scanner includes a supported select stacker, you must select it in the OMR/Image Scanner Properties window in order to use it. The following items can be rejected during scanning:

Option	Description
Multiple responses	Sends sheets to the select stacker if multiple responses are marked but not allowed in the form template.
Blank responses	Sends sheets to the select stacker if items are left blank.
Barcode errors	Sends sheets to the select stacker if the barcode cannot be read.


Option	Description
Read head errors	Sends sheets to the select stacker if the read head test fails. A read head test is only performed if the read head test checkbox is turned on in the form template properties.
Timing mark errors	Sends sheets to the select stacker if the timing marks on the form cannot be read. This type of error could be the result of choosing the wrong form template file, entering the wrong amount of timing marks for the form in the form template's properties or a skewed form.
Form read errors	Sends sheets to the select stacker if form errors occur. Examples of form read errors include when page IDs cannot be identified or when the timing marks cannot be properly read (and you are not already rejecting on them).
Database lookup regions	Sends sheets to the select stacker if the database lookup region cannot be recognized.
Required items	Sends sheets to the select stacker if an item marked as required has an error (e.g., is left blank or has multiple marks).
Misordered pages	Sends sheets to the select stacker if pages are read out of order and you are not using respondent trackers (which allow scanning of respondents' pages out of order). This feature is useful if using page identifiers and you want to reject any pages that are scanned out of order.

### To select the reject stacker option

- 1 Select the **Tools** menu and then click **OMR/Image Scanner Properties**.
- 2 After selecting your OMR scanner, mark the checkbox for **Use Select Stacker**.
- 3 Click the **OK** button to save the changes.

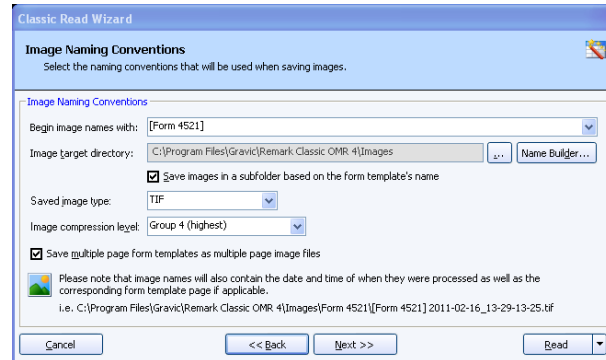


Once you have selected the **Use Select Stacker** option in the software, you may read forms and specify what types of errors you want to apply to the select stacker.

- 4 Open the correct form template. Only open forms with a .RST extension. These forms are located by default in C:\Program Files\Gravic\Remark Classic OMR 4\Templates\Scantron\OMR-Image. (See Section 6.3.1 Opening a Form Template.)
- 5 Place the completed forms in the scanner.
- 6 Select the **Tools** menu and then click **Read Wizard**, or click . Alternatively, you may select the **Read Wizard** link from the Task Pane.
- 7 In the **Welcome** window, your scanner is listed. Beneath the scanner are the options you have indicated are installed on your scanner in the Scanner Properties window. If you would like to change any of these options, click the Setup button.

- 8 To ensure you are capturing images of scanned sheets, make sure the **Imaging enabled** checkbox is selected.
- 9 [Optional] If your OMR scanner has a printer installed and you have indicated that you have a printer in the OMR Scanner Properties window, you may optionally mark the checkbox for **Activate Print Options**. See Section 6.3.8 for detailed information about printing on forms.
- 9 Click the **Next>>** button to continue.

10 The **Image Naming Conventions** window appears, which allows you to specify options about the images that are automatically stored each time you scan forms. In the **Begin image names with** box, enter a file base name that the software can use to name the images stored for this form. The default base name is the form template name; however, you may use any name you like. We suggest using something that identifies to you that the images belong to a certain form. The images that are stored all begin with this base name and then have the page number (if scanning a multi-page form), date and time appended to them to keep track of the various images. You may optionally choose a region from the form template to use as the base name. The value that is collected from the form for the specified region is used as the base name for the corresponding stored image. For example, if scanning student tests you could use a Student ID region to name the resulting image files by student. If you leave the **Begin image names with** option blank, your images only have the page number (if applicable), date and time as the name of each image.



- 11 In the **Image target directory** box, click the ellipsis (...) button to select a location in which to store the images for this form. You may use the default directory for images or select a different directory on your computer, external drive or network.

**Note:** Choose the image location carefully. The images should remain in this location once the data is saved using the RMK format if you want to retain the link between the processed data and each image file. This link allows you to view the forms on screen as you click through the data grid, making it easy to correct exceptions in your data. Therefore, you should plan ahead on how you will store these images when the forms are processed.

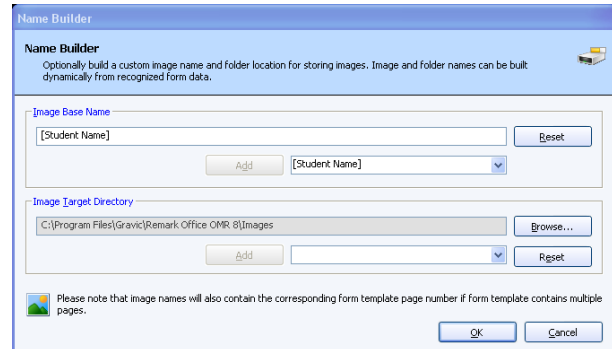
**Tip:** If you are sharing files with other Remark Office OMR users, you may wish to save the image files on a shared network drive that all users have access to in the same manner (e.g., through a mapped network drive).

- 12 Mark the checkbox for **Save images in a subfolder based on the form template's name** to have the Data Center automatically create a folder in which to store these images. The folder name is the name of the form template and the folder is created in the directory you have selected in the **Image target directory** box.

**Tip:** We recommend using the **Save images in a subfolder based on the form template's name** feature for easier organization of image files. Use of this feature keeps all images associated with each form template in one folder for easy access. The unique date and time portion of the image names prevents images from being overwritten.

**13** [OPTIONAL] If desired, click the **Name Builder...** button to further customize the stored image names and locations.

- In the **Image Base Name** area, you may choose to add a region from the processed data to the image base name. Choose the region from the drop-down list and then click the **Add** button. If you already added a region in Step 10, the **Name Builder** allows you to add additional regions. For example, if processing tests, you could add a Student ID that is being collected from the form so that your processed images all have the Student ID number in them.



- In the **Image Target Directory** area, you may choose to add a region from the processed data to the folder structure that holds the processed images. Choose the region from the drop-down list and then click the **Add** button. For example, if processing tests, you could add a Test ID that is being collected from the form so that each student's form images are stored in a folder containing the Test ID.
- In the **Name Builder** box, click the **OK** button to return to the **Read Wizard**.

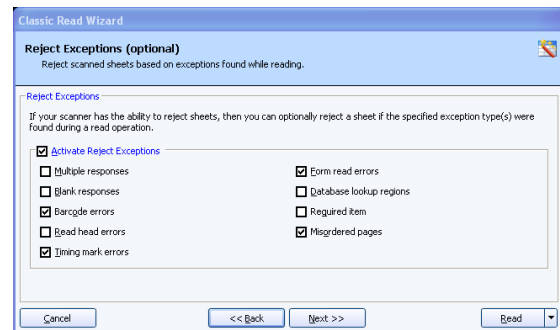
**14** In the **Saved image type** box, select an image type to use for storing images. The choices are: **PCX/DCX, PDF, TIF** or **JPG**.

**15** When saving to the PDF or TIF formats, you can choose the compression level under **Image compression level: Uncompressed, Group 3, Group 3 2d, Group 4** and **LZW**. Group 4 creates the most compressed image (smallest file size that take up less space on your computer).

**16** Mark the checkbox for **Save multiple page form templates as multiple page image files** if you are scanning a multi-page form and would like all of the images for one complete form to be saved as one image file. Using this option creates fewer image files and is recommended.

**17** Click the **Next>>** button to continue.

**18** In the **Activate Reject Exceptions** window, specify whether to reject exceptions by selecting or deselecting the **Activate Reject Exceptions** checkbox. Then choose the options that will trigger an exception: **multiple responses, blank responses, barcode errors, read head exceptions, timing mark errors, form read errors, database verification errors, required item errors** or **misordered pages** (applicable if using sheet identifiers and/or respondent trackers).



**19** [Optional] If you would like to configure **Review Exceptions** options, click the **Next>>** button to continue. Otherwise click the **Read** button to begin scanning pages. Review Exceptions is a way to correct exception cases found on forms, such as blank and multiple responses (see Section 6.7 Review Exceptions for further details about using this feature).



**Note:** Review Exceptions can also be run after all the forms are processed if you prefer not to stop processing when problems occur.

**20** Click the **Read** button to begin scanning pages.

During scanning, any forms that contain the specified reject options are sent to the reject stacker. A log is kept of each form that is sent to the reject stacker, explaining why it was rejected. When you finish scanning forms, you have an option to view the log in the dialog that appears at the end of each scanning session. You may also select the **Tools** menu and then click **View Reject Log** to view the log file.

### 6.3.8 Using an OMR/Image Scanner's Printer

Some OMR/Image scanners have a printer installed that allows you to print specific information on each form as it is scanned. The printer can be used to print items such as a form number, date, field on the form (e.g., an ID field), etc.

The following items can be printed on the forms:

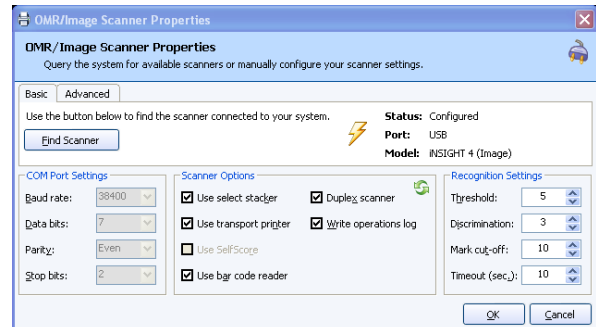
- Time Stamp
- Date Stamp
- Time and Date Stamp
- Sheet Number
- Record Number
- Sequence Number
- Record and Sheet Number
- Any Field in the Template
- Customized Text

If your OMR/Image scanner contains a supported printer, you must select it in the OMR/Image Scanner properties window in order to use it.


#### To select the printer option

- 1 Select the **Tools** menu and then click **OMR/Image Scanner Properties**.
- 2 After selecting your OMR scanner, mark the checkbox for **Use Transport Printer**.
- 3 Click the **OK** button to save the changes.

Once you have selected **Use Transport Printer** in the software, you may select what to print when you begin reading forms.



#### To select print options

- 1 Open the correct form template. Only open forms with a .RST extension. These forms are located by default in C:\Program Files\Gravic\Remark Classic OMR 4\Templates\Scantron\OMR-Image. (See Section 6.3.1 Opening a Form Template.)
- 2 Place the completed forms in the scanner.
- 3 Select the **Tools** menu and then click **Read Wizard**, or click . Alternatively, you may select the **Read Wizard** link from the Task Pane.
- 4 In the **Welcome** window, your scanner is listed. Beneath the scanner are the options you have indicated are installed on your scanner in the Scanner Properties window. If you would like to change any of these options, click the **Setup** button.

5 To ensure you are capturing images of scanned sheets, make sure the **Imaging enabled** checkbox is selected.

6 If your OMR/Image scanner has a printer installed and you have indicated that you have a printer in the OMR/Image Scanner Properties window, you may optionally mark the checkbox for **Activate Print Options**.

- Use the drop-down list to choose an item to print or enter free form text. Note that some scanners can print a limited amount of text. Therefore, all three drop-down lists may not be enabled in order to ensure you do not select more items than can be printed with your OMR scanner.
- For Scantron OMR scanners only: Scantron OMR scanners can print on the last two inches of the form only. In the **Print position** box, specify where to print the information on each sheet by entering a value of 0-27 for the start position.

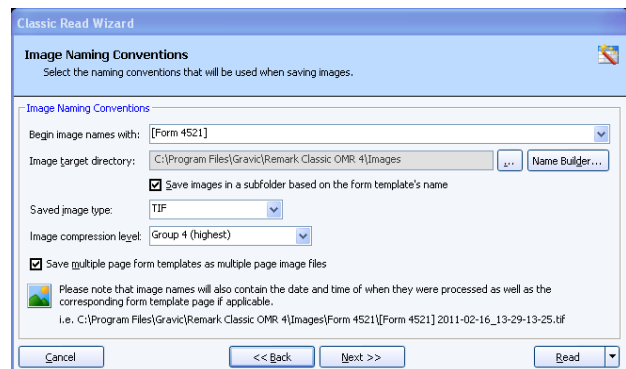
6 Click the **Next>>** button to continue.

7 The **Image Naming Conventions** window appears, which allows you to specify options about the images that are automatically stored each time you scan forms. In the **Begin image names with** box,

enter a file base name that the software can use to name the images stored for this form. The default base name is the form template name; however, you may use any name you like. We suggest using something that identifies to you that the images belong to a certain form. The images that are stored all begin with this base name and then have the page number (if scanning a multi-page form), date and time appended to them to keep track of the various images. You may optionally choose a region from the form template to use as the base name. The value that is collected from the form for the specified region is used as the base name for the corresponding stored image. For example, if scanning student tests you could use a Student ID region to name the resulting image files by student. If you leave the **Begin image names with** option blank, your images only have the page number (if applicable), date and time as the name of each image.

8 In the **Image target directory** box, click the ellipsis (...) button to select a location in which to store the images for this form. You may use the default directory for images or select a different directory on your computer, external drive or network.

**Note:** Choose the image location carefully. The images should remain in this location once the data is saved using the RMK format if you want to retain the link between the processed data and each image file. This link allows you to view the forms on screen as you click through the data grid, making





it easy to correct exceptions in your data. Therefore, you should plan ahead on how you will store these images when the forms are processed.

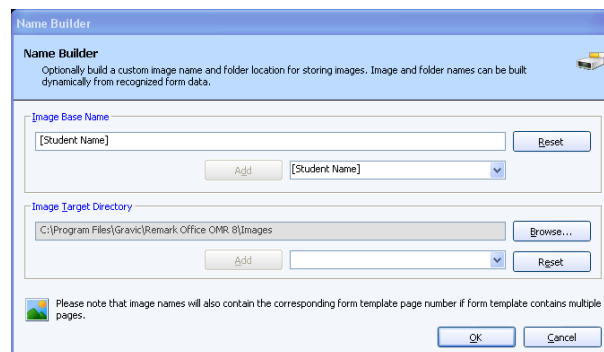
**Tip:** If you are sharing files with other Remark Office OMR users, you may wish to save the image files on a shared network drive that all users have access to in the same manner (e.g., through a mapped network drive).

- 9** Mark the checkbox for **Save images in a subfolder based on the form template's name** to have the Data Center automatically create a folder in which to store these images. The folder name is the name of the form template and the folder is created in the directory you have selected in the **Image target directory** box.

**Tip:** We recommend using the **Save images in a subfolder based on the form template's name** feature for easier organization of image files. Use of this feature keeps all images associated with each form template in one folder for easy access. The unique date and time portion of the image names prevents images from being overwritten.

- 10** [OPTIONAL] If desired, click the **Name Builder...** button to further customize the stored image names and locations.

- In the **Image Base Name** area, you may choose to add a region from the processed data to the image base name. Choose the region from the drop-down list and then click the **Add** button. If you already added a region in Step 7, the **Name Builder** allows you to add additional regions. For example, if processing tests, you could add a Student ID that is being collected from the form so that your processed images all have the Student ID number in them.
- In the **Image Target Directory** area, you may choose to add a region from the processed data to the folder structure that holds the processed images. Choose the region from the drop-down list and then click the **Add** button. For example, if processing tests, you could add a Test ID that is being collected from the form so that each student's form images are stored in a folder containing the Test ID.
- In the **Name Builder** box, click the **OK** button to return to the **Read Wizard**.



- 11** In the **Saved image type** box, select an image type to use for storing images. The choices are: **PCX/DCX, PDF, TIF** or **JPG**.
- 12** When saving to the PDF or TIF formats, you can choose the compression level under **Image compression level: Uncompressed, Group 3, Group 3 2d, Group 4** and **LZW**. Group 4 creates the most compressed image (smallest file size that take up less space on your computer).
- 13** Mark the checkbox for **Save multiple page form templates as multiple page image files** if you are scanning a multi-page form and would like all of the images for one complete form to be saved as one image file. Using this option creates fewer image files and is recommended.
- 13** [Optional] If your OMR scanner has a select stacker (rejecter) and you have it enabled, you may click the Next>> button to configure the Reject Exceptions. Otherwise click the Read button to begin scanning pages. When the select stacker is enabled, forms that are not properly read are sent to the select stacker without any

data being captured. You may review the forms, correct any problems and rescan them if desired. Please see Section 6.3.7 for detailed information about using a select stacker.

- 14 [Optional] If you would like to configure Review Exceptions options, click the Next>> button to continue. Otherwise click the Read button to begin scanning pages. Review Exceptions is a way to correct exception cases found on forms, such as blank and multiple responses (see Section 6.7 Review Exceptions for further details about using this feature).

**Note:** Review Exceptions can also be run after all the forms are scanned if you prefer not to stop scanning when problems occur.

- 15 Click the **Read** button to begin scanning pages.

As the forms are scanned, the item or items you selected to print are printed on the forms.

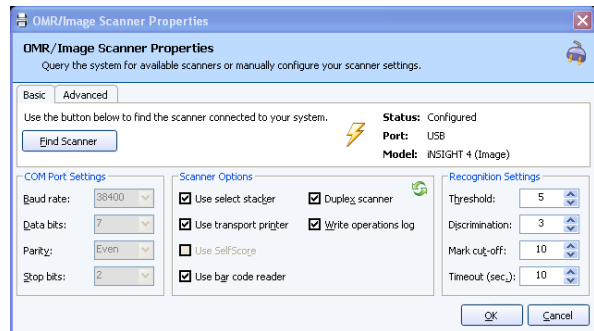
### 6.3.9 Using Grade and Print with an OMR/Image Scanner

Remark Classic OMR allows you to print grade information on forms as they are scanned. Your OMR/Image scanner must have a printer in order to perform this task. As each form is scanned, you may print the Grade, Total Score or Percent Score on the forms. You must scan the answer key first, then the forms you wish to have graded. Remark Classic OMR uses this answer key to produce a grade for the remaining forms as they are scanned.

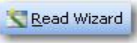
#### To select the printer option

- 1 Select the **Tools** menu and then click **OMR/Image Scanner Properties**.
- 2 After selecting your OMR scanner, mark the checkbox for **Use transport printer**.
- 3 Click the **OK** button to save the changes.

Once you have selected **Use Transport Printer** in the software, you may select what to print when you begin reading forms.



#### To use Grade and Print

- 1 Open the correct form template. Only open forms with a .RST extension. These forms are located by default in C:\Program Files\Gravic\Remark Classic OMR 4\Templates\Scantron\OMR-Image. (See Section 6.3.1 Opening a Form Template.)
- 2 Place the completed forms in the scanner.
- 3 Select the **Tools** menu and then click **Read Wizard**, or click . Alternatively, you may select the **Read Wizard** link from the Task Pane.
- 4 In the **Welcome** window, your scanner is listed. Beneath the scanner are the options you have indicated are installed on your scanner in the Scanner Properties window. If you would like to change any of these options, click the **Setup** button.

5 To ensure you are capturing images of scanned sheets, make sure the **Imaging enabled** checkbox is selected.

6 If your OMR scanner has a printer installed and you have indicated that you have a printer in the OMR Scanner Properties window, you may optionally mark the checkbox for **Activate Print Options**.

- Use the drop-down list to choose the grade item to print: **Grade**, **Total Score** or **Percent Score**. Note that some scanners can print a limited amount of text. Therefore, all three drop-down lists may not be enabled in order to ensure you do not select more items than can be printed with your OMR scanner.
- For Scantron OMR scanners only: Scantron OMR scanners can print on the last two inches of the form only. In the **Print position** box, specify where to print the information on each sheet by entering a value of 0-27 for the start position.

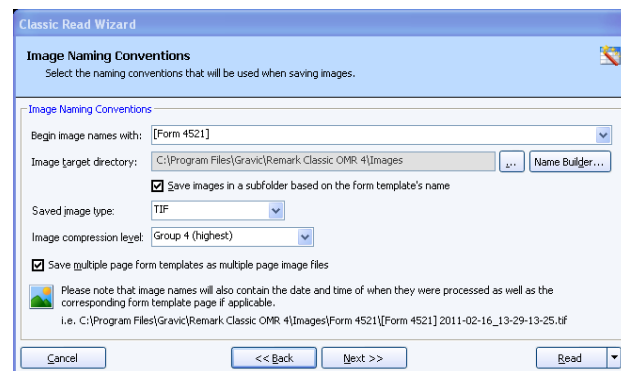
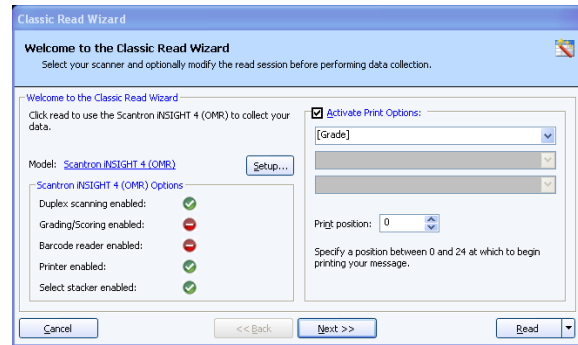
6 Click the **Next>>** button to continue.

7 The **Image Naming Conventions** window appears, which allows you to specify

options about the images that are automatically stored each time you scan forms. In the **Begin image names with** box, enter a file base name that the software can use to name the images stored for this form. The default base name is the form template name; however, you may use any name you like. We suggest using something that identifies to you that the images belong to a certain form. The images that are stored all begin with this base name and then have the page number (if scanning a multi-page form), date and time appended to them to keep track of the various images. You may optionally choose a region from the form template to use as the base name. The value that is collected from the form for the specified region is used as the base name for the corresponding stored image. For example, if scanning student tests you could use a Student ID region to name the resulting image files by student. If you leave the **Begin image names with** option blank, your images only have the page number (if applicable), date and time as the name of each image.

8 In the **Image target directory** box, click the ellipsis (...) button to select a location in which to store the images for this form. You may use the default directory for images or select a different directory on your computer, external drive or network.

**Note:** Choose the image location carefully. The images should remain in this location once the data is saved using the RMK format if you want to retain the link between the processed data and each image file. This link allows you to view the forms on screen as you click through the data grid, making



it easy to correct exceptions in your data. Therefore, you should plan ahead on how you will store these images when the forms are processed.

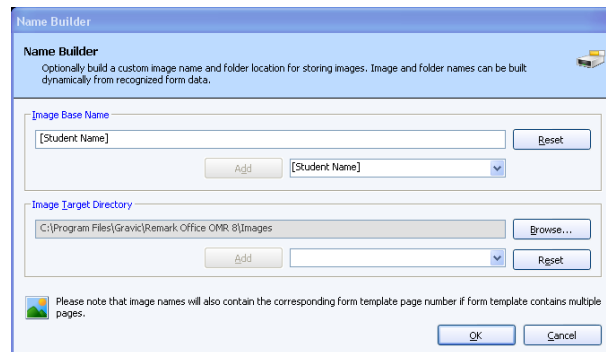
**Tip:** If you are sharing files with other Remark Office OMR users, you may wish to save the image files on a shared network drive that all users have access to in the same manner (e.g., through a mapped network drive).

- 9 Mark the checkbox for **Save images in a subfolder based on the form template's name** to have the Data Center automatically create a folder in which to store these images. The folder name is the name of the form template and the folder is created in the directory you have selected in the **Image target directory** box.

**Tip:** We recommend using the **Save images in a subfolder based on the form template's name** feature for easier organization of image files. Use of this feature keeps all images associated with each form template in one folder for easy access. The unique date and time portion of the image names prevents images from being overwritten.

- 10 [OPTIONAL] If desired, click the **Name Builder...** button to further customize the stored image names and locations.

- In the **Image Base Name** area, you may choose to add a region from the processed data to the image base name. Choose the region from the drop-down list and then click the **Add** button. If you already added a region in Step 7, the **Name Builder** allows you to add additional regions. For example, if processing tests, you could add a Student ID that is being collected from the form so that your processed images all have the Student ID number in them.
- In the **Image Target Directory** area, you may choose to add a region from the processed data to the folder structure that holds the processed images. Choose the region from the drop-down list and then click the **Add** button. For example, if processing tests, you could add a Test ID that is being collected from the form so that each student's form images are stored in a folder containing the Test ID.
- In the **Name Builder** box, click the **OK** button to return to the **Read Wizard**.



- 11 In the **Saved image type** box, select an image type to use for storing images. The choices are: **PCX/DCX, PDF, TIF** or **JPG**.
- 12 When saving to the PDF or TIF formats, you can choose the compression level under **Image compression level: Uncompressed, Group 3, Group 3 2d, Group 4** and **LZW**. Group 4 creates the most compressed image (smallest file size that take up less space on your computer).
- 13 Mark the checkbox for **Save multiple page form templates as multiple page image files** if you are scanning a multi-page form and would like all of the images for one complete form to be saved as one image file. Using this option creates fewer image files and is recommended.
- 14 [Optional] If your OMR scanner has a select stacker (rejecter) and you have it enabled, you may click the **Next>>** button to configure the Reject Exceptions. Otherwise click the Read button to begin scanning pages. When the select stacker is enabled, forms that are not properly read are sent to the select stacker without any

data being captured. You may review the forms, correct any problems and rescan them if desired. Please see Section 6.3.7 for detailed information about using a select stacker.

- 15** [Optional] If you would like to configure Review Exceptions options, click the Next>> button to continue. Otherwise click the Read button to begin scanning pages. Review Exceptions is a way to correct exception cases found on forms, such as blank and multiple responses (see Section 6.7 Review Exceptions for further details about using this feature).

**Note:** Review Exceptions can also be run after all the forms are scanned if you prefer not to stop scanning when problems occur.

- 16** Click the **Read** button to begin scanning pages.

As the forms are scanned, the item or items you selected to print are printed on the forms.

## 6.4 Batch Processing

The Remark Classic OMR Data Center includes a batch processing feature that allows you to process batch header forms along with your forms. Batch header forms can provide further information about the group of forms being processed that make your data more meaningful.

**Note:** Batch processing can only be used with an OMR scanner (not an OMR/Image scanner). Your scanner must be in OMR mode only (set up and set as the default under **Tools|OMR Scanner|OMR Scanner Properties**) and you will not be able to capture the scanned form images.

For example, if you are processing student tests or course evaluations, you can process a batch header form containing information such as instructor name, class name, class section, and so forth. The batch header form is processed once, at the beginning of each batch. Then the forms that correspond to that batch header form are processed subsequently. The data from the header form is pre-pended to (added to the beginning of) each data record. You can start processing a new batch and its corresponding forms at any time. The header data is also available when it comes time to report on the data in Remark Quick Stats.

To create a batch, you create form templates for the batch header form(s) and the form you wish to process with that batch header form (called a primary form template). You can use multiple batch header forms but only a single primary form template. You then combine these form templates into a batch file. Both forms must have unique Page IDs on them. Remark Classic OMR uses the page IDs to understand when a batch header form is being read versus a regular form. All form templates used in a batch must be of the same type: all simplex or all duplex. If your header sheet only has information on one side, create a duplex form template and put an Input region on the backside that is not set to read in the data grid (you will find this option in the Advanced section of the Input region's properties).

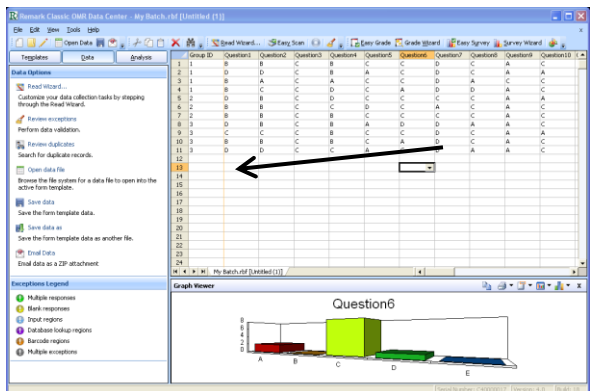
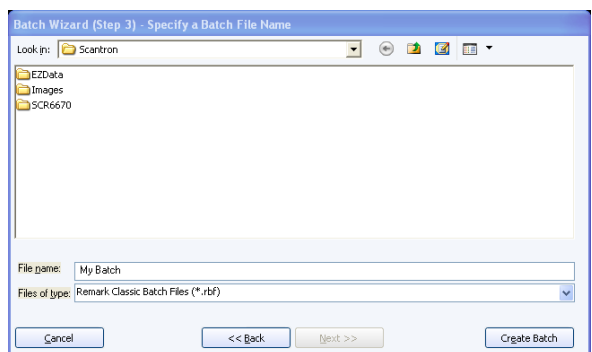
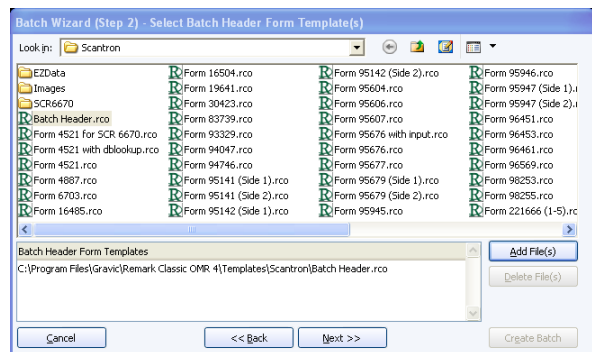
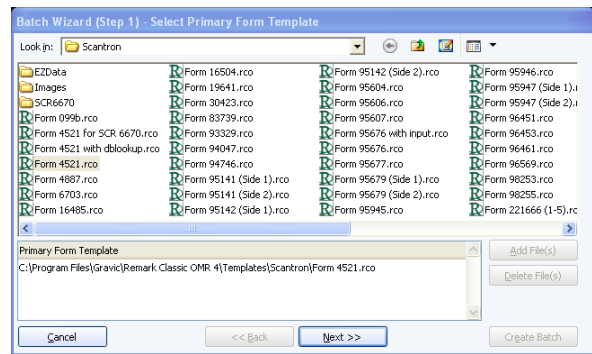
### To use batch header forms

- 1** Create or locate a form template for the form you wish to process as a *batch header* form. *Ensure the form has a unique Page ID.* (See Chapter 5 for further information about creating form templates.)

- 2 Create or locate a form template for the form you wish to process *along with* the batch header form. *Ensure the form has a unique Page ID.* (See Chapter 5 for further information about creating form templates.)
- 3 In the **Remark Classic OMR Data Center**, ensure you have an OMR scanner (not OMR/Image scanner) as your default scanner. You can find this setting under **Tools|OMR Scanner|Set as Default Scanner**. OMR/Image scanners cannot be used for batch processing.
- 4 Select the **File** menu and then click **Batch Wizard**. Alternatively, select the **Batch Wizard** link from the **Task Pane**.
- 5 In the **Batch Wizard (Step 1)** window, select the form template that is being used as the primary form template (not the header form). This is the form template that corresponds to the form you wish to process after each batch header form. Click the **Add File(s)** button to add the form template to the **Primary Form Template** box.
- 6 Click the **Next>>** button to continue.
- 7 In the **Batch Wizard (Step 2)** window, select the form template corresponding to your batch header form. Click the **Add File(s)** button to add it to the **Batch Header Form Templates** box. You may select multiple batch header form templates if desired.
- 8 Click the **Next>>** button to continue.
- 9 In the **Batch Wizard (Step 3)** window, enter a file name for the new combined batch file. The Data Center combines the form template and batch header form template(s) into one batch file. The new combined file has a .rbf file extension.
- 10 Click the **Create Batch** button to combine the templates and exit the **Batch Wizard**.

When the batch file opens in the data grid, an orange line separates the end of the batch header form template regions from the beginning of the primary form regions.

- 11 Process the first batch header form (or forms) by starting the **Read Wizard** and scanning forms. (See Section 6.2.2 for detailed information about using the Read Wizard.)





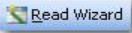
- 12 Follow the batch header form with the forms that correspond with the group identified on the batch header form.
- 13 When the first group of forms has been processed, insert a new batch header form and follow it with the corresponding forms.
- 14 Continue processing forms in this fashion until you have processed all of your batches. In the end, you see an entire data set with all of the batch header information pre-pended to the records.

**Tip:** If you have already created a batch file and want to open it without using the Batch Wizard, select the **File** menu and then select **Open Form Template**. Change the **Files of** type drop-down list to **Remark Classic Batch Files** to view available batch files.

## 6.5 Overwriting Data Records

The Remark Classic OMR Data Center allows you to overwrite scanned data. To use this feature, you must first select a grid row. You can then use the Read Wizard or Easy Scan to process new forms.

### To overwrite data

- 1 Highlight the data grid row(s) containing the data you wish to overwrite by clicking in the row header(s).
- 2 Select the **Tools** menu and then click **Read Wizard**, or click . Alternatively, you may select the **Read Wizard** link from the Task Pane or Easy Scan from the toolbar.
- 3 Configure the **Read Wizard** options by clicking the **Next>>** button (see Sections 6.2 and 6.3 for detailed information about using the Read Wizard).
- 4 Place all pages to be read in the scanner and then click the **Read** button.
 

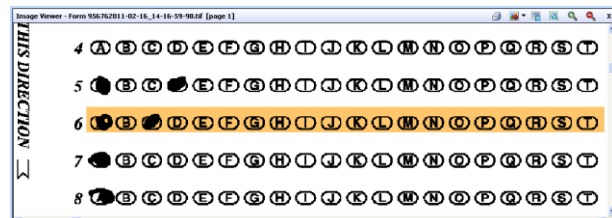
**Note:** If you place more than one page in the scanner, the Data Center continues reading pages and placing data across the selected grid row sequentially. However, the Data Center does not read past the last highlighted grid row(s).
- 5 When prompted to overwrite the data, click the **Overwrite** button. If you do not wish to overwrite the data for any reason, click the **Cancel** button.

The Data Center continues processing forms until all selected pages in the data grid row(s) have been replaced.






## 6.6 Image Viewer

Remark Classic OMR includes an Image Viewer at the bottom of the screen that displays an image of each processed form. It is only visible when your default scanner is an OMR/Image scanner

(**Tools|OMR/Image Scanner|Use as Default Scanner**). This window is used to view handwritten comments for data entry, as well as for reviewing exceptions and making corrections. The Image Viewer eliminates the need to refer back to the original paper form. To









show and hide the Image Viewer, select the **View** menu and choose **Image Viewer**. The following options are available on the Image Viewer:

Icon	Option	Description
	Print	Click the <b>Print</b> button to print the current image. A printer window appears where you can choose and configure a printer.
	Rotate Image	Click the <b>Rotate Image</b> icon to rotate the active image 0, 270, 180 or 90 degrees.
	Zoom to Region on Selection	Click the <b>Zoom to Region on Selection</b> button to have the colored area on the Image Viewer zoom to the selected region in the grid. This feature is useful when correcting exceptions so that you can see the exact cell contents where the error occurred.
	Zoom In/Zoom Out	Click the <b>Zoom In</b> button to zoom in on the image (make it larger) and click the <b>Zoom Out</b> button to zoom out on the image (make it smaller). Note that Remark Office OMR only holds your zoom settings as you click cells in the data grid if you do not have Zoom to Region on Selection selected.
	Close Image Viewer	Click the <b>X</b> to close the Image Viewer. You can always reopen it using the <b>Tools</b> menu.

## 6.7 Reviewing Exceptions

As forms are scanned, exception cases can occur. Exception cases are anything that cannot be properly read. You should edit cells containing exception cases to validate your data before performing any analysis operations or exporting the data to another application. Each exception case is assigned a specific color so that you can easily distinguish different types of exceptions. There is a legend depicting the types of exceptions and their accompanying color in the Task Pane of the Data Center (if you cannot see the Exceptions Legend, click **View|Exceptions Legend**). The following table summarizes the types of exception cases and their possible causes.

Exceptions Legend	
	Multiple responses
	Blank responses
	Input regions
	Database lookup regions
	Barcode regions
	Multiple exceptions

Error Type	Text	Color	Possible Causes
Multiple Responses (Too Many Responses)	All multiple responses or MULT	Green	More than one answer selected when multiple responses are not permitted. Partially erased forms. Carelessly marked forms.



Error Type	Text	Color	Possible Causes
Blank Responses (No Response)	BLANK	Yellow	Unanswered questions. Response not completely filled.
Input Regions	None	Light Blue	Signifies an input region where you may type information.
Database Lookup Errors	Selected Responses	Purple	Response not found within the selected database to which the region is linked.
Barcode Errors	???	Dark Orange	The OMR scanner cannot read the barcode. It could be misplaced on the form or a barcode type that the scanner is not capable of reading. Check your OMR scanner manufacturer's user's guide for information about supported barcodes.
Required item	None	Exception Color	Signifies that a required region was not properly answered. Typically, this means that another exception occurred, such as a blank or multiple response. The data grid cell takes on the color of this exception (e.g., yellow for a blank response), but there is no text, indicating that the question was required. Flagging required questions is particularly useful when you use the Review Exceptions function during form processing (meaning the processing stops so that you can review the problem). Note that you should use caution when making questions required and using the "Flag Blanks" setting. If Flag Blanks is set to Never, anything left blank does not display as a required item exception.
Multiple exceptions	None	Gray	Signifies that multiple exceptions were found in the region. For example, an OMR region that is also being used as a Database Lookup region might not be recognized properly. In this case, it is both an OMR recognition exception (e.g., a blank) and a Database Lookup exception. The gray color lets you know that more than one issue was found.

You can resolve exception cases in one of two ways: editing individual cells or using the Review Exceptions feature during or after form processing.

**Note:** The exception colors in the grid and links to the scanned forms (if using an OMR/Image scanner) are only retained if you save data to the Remark data format. Once you export your data to another format, if you

reopen that format, the grid colors are not present. Please see Section 7.6 for detailed information about saving data.

### 6.7.1 Reviewing Exceptions by Modifying Individual Cells

One way of correcting exceptions is by individually clicking the cell you wish to change. You can use the drop-down arrow to select correct responses or type the desired text into the cell.

**Note:** Editing a cell removes any exception colors.

#### To reconcile cells individually

- 1 Click the cell that you wish to change.
- 2 If the cell contains a drop-down arrow, click the arrow and choose the correct response from the list.
- 3 If the cell does not contain a drop-down arrow, type the appropriate response in the cell and press **Enter** or click another cell.

**Note:** Each cell contains either a text box or a drop-down list box depending on its region type. Grid, Binary and Add OMR regions, Barcode regions, and Input regions that are not using the Database Lookup feature are considered text regions. You do not have a drop-down list box for these region types. All other types of OMR regions and Input regions using Database Lookup are considered list regions and have a drop-down list from which you can choose responses.

### 6.7.2 Using Review Exceptions

Remark Classic OMR provides the Review Exceptions feature as a method to validate data. You may use the Review Exceptions feature to review the following exception cases: blank responses, multiple responses, barcode errors, database lookup errors, required items, multiple exceptions or data entry Input regions.

The Review Exceptions feature can be used in one of two ways:

**During Scanning:** If used during the reading process, Review Exceptions provides an option to have the Data Center pause after encountering selected exception types. You can then select or enter the correct response.

**After Scanning:** Review Exceptions can also be used after the forms have been scanned; therefore, you are not required to have the software stop processing forms when exceptions are encountered. When reviewing after processing, the software cycles through the data file to find exception cases and then allows you to make the appropriate changes.

Regardless of how you use Review Exceptions, the Data Center displays a Review Exceptions window in the Task Pane. The following table details the available Review Exceptions options:

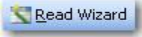
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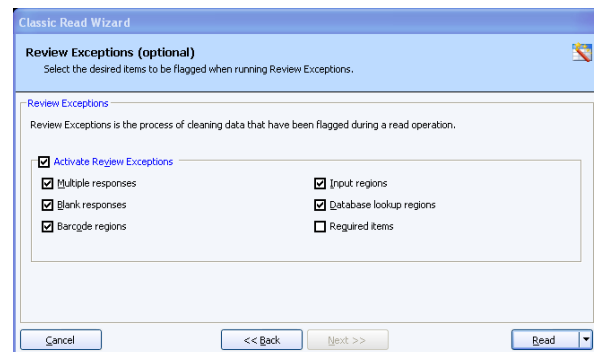
Review Option	Function
Blank Responses	Review when a respondent fails to answer a question.
Multiple Responses	Review when a respondent chooses more responses than were permitted.
Input Regions	Review when an Input region is encountered. Allows the hand entry of information into the data grid.

---

Review Option	Function
Database Lookup Errors	Review when a database lookup error is encountered, meaning that the response is not located in the database that was specified during the form template creation process. Once you correct the Database Lookup exception, if you are returning other regions from the database, they are updated automatically.
Barcode Errors	Review when the scanner cannot read the barcode properly.
Required Items	Review when a required item has not been answered.


### To use Review Exceptions during scanning

- 1 Open the correct form template.
- 2 Place the completed forms in the scanner.
- 3 Begin scanning forms by either selecting the **Tools** menu and then clicking **Read Wizard**, clicking  or clicking the **Read Wizard** link in the Task Pane.
- 4 Make the necessary selections in the **Read Wizard** as it pertains to scanner features, printing and rejecting exceptions (see Sections 6.2 and 6.3 for detailed information about these screens).
- 5 Click the **Next>>** button to go to the **Review Exceptions** screen (this is the final screen in the Read Wizard).
- 6 Mark the checkbox for **Activate Review Exceptions** to turn on the Review Exceptions feature.
- 7 In the **Review Exceptions Options** area, select the exception cases you would like to review during form processing: **Multiple responses**, **Blank responses**, **Input regions**, **Database lookup regions**, **Barcode regions**, or **Required items**.
- 8 Click the **Read** button to begin the reading process.



The Data Center begins scanning forms. When the software encounters one of the specified exception cases, processing stops and the Review Exceptions window appears in the left Task Pane. You use this window to make changes. If you are using an OMR/Image scanner and capturing scanned images, you can use the Image Viewer to assist you with the review. Please proceed to Section 6.7.2.a for detailed information about the Review Exceptions window.

### To use Review Exceptions after scanning

- 1 After scanning forms, select the **Tools** menu and then click **Review Exceptions**, or click . Alternatively, you may select the **Review exceptions** link from the **Data tab** of the Task Pane.

- 2 In the Review Exceptions Options area, select the exception cases you would like to review: **Blank responses, Multiple responses, Input regions, Database lookup regions, Barcode regions, or Required items.**
- 3 Click the **Begin Review** button to begin reviewing the data.

**Tip:** You may process forms and clean sections of the data as you go. Simply begin Review Exceptions normally. Then, if you wish to process more forms, leave the Review Exceptions window open and process additional forms. When you are ready to review the newly processed forms, in the Review Exceptions window, click the down arrow on the **Begin Review** button and choose **Begin from Last Read Operation**. The Data Center begins reviewing data grid rows from the point where you most recently began processing forms.

The Data Center searches the data for the specified exception cases. When a selected exception case is found, it appears in the Review Exceptions window in the left Task Pane. You use this window to make changes. If you are using an OMR/Image scanner and capturing form images, you see the image in the Image Viewer to assist you with cleaning the data. Please proceed to the next section for detailed information about the Review Exceptions window.

**Tip:** When using Review Exceptions after form processing, you can review the entire data set or sections of the data set. To review sections of the data set, select the column or row header(s) of the area you wish to review, or highlight a group of cells. For example, if you only want to review a specific comment region (Input region) so that you can hand enter data, select the column header of the comment region so that the entire column is highlighted. Then click Review Exceptions; only the selected column is reviewed.

There may be times when you are reviewing exceptions and the exceptions are legitimate, e.g., a question is left blank. By default, if you leave the exception as is, it always retains the color coding and exception text. If you prefer to remove the color coding once an item has been reviewed, go to **Tools|Preferences** and mark the checkbox for **Clear exceptions after they have been reviewed** in the section called **Review Exceptions**. After a cell is reviewed using Review Exceptions, the color disappears even if you did not make a change to the cell. If Review Exceptions is run again, the cell is not flagged as an exception.

### 6.7.2.a Using the Review Exceptions Window

Whether you use Review Exceptions during or after form processing, any exceptions found while reading display in the Review Exceptions window. The Review Exceptions window displays the following information:

Property	Function
Search by:	Row/Respondent: Use this option to search across the data grid in rows (by respondent). Column/Item: Use this option to search across the data grid in columns (by form template item/question).
Response	Displays the current response. Use this box to enter the correct response by typing the response or clicking the drop-down arrow and choosing a response.


Property	Function
Search Forward	Moves to the next exception case.
Search Backward	Moves backwards until it encounters an exception case.
Next Row/Column	Moves to the next exception case on the next form or column (it searches by row or column, depending on your selection in the Search by box).
Previous Row/Column	Moves backward one row or column until it encounters an exception case (it searches by row or column depending on your selection in the Search by box).
Finished	Ends Review Exceptions.
Cancel	<p>Cancels reviewing of the current page. Upon canceling you have three options:</p> <ol style="list-style-type: none"> <li><i>Restore Original Data:</i> Cancels any changes made to this page during Review Exceptions and restores the original data.</li> <li><i>Discard Page Data:</i> Discards the current page's data all together. You may rescan the form after discarding the data.</li> <li><i>Cancel:</i> Returns to Review Exceptions.</li> </ol>

### To replace an exception

- 1 Click the **Response** box down arrow (if available) to view a list of possible responses and then click the correct answer(s), or type the desired text into the **Response** box. The down arrow is available for Multiple, Boolean and List OMR regions, as well as Input regions that use Database Lookup. You may type the first few letters of a response and Remark Classic OMR tries to auto-fill the response for you. For Grid, Add and Binary OMR regions, as well as Barcode and Input regions without Database Lookup, you may type the appropriate response.

**Note:** The displayed exception text (e.g., BLANK) and color remain in the output data unless you replace it. If you prefer to remove the color coding once an item has been reviewed but left unchanged, go to

**Tools|Preferences** and mark the checkbox for **Clear exceptions after they have been reviewed** in the section called **Review Exceptions**. Then run Review Exceptions.

- 2 To move to the next exception case on the current form, click the **Search Forward** button at the bottom of the window. You may also press the **Enter** key on your keyboard to advance to the next exception.
 
- 3 To skip any remaining exception cases on the current form and move to the next form containing exception cases, click the **Next Row/Next Column** button at the bottom of the window.
- 4 When you have completed reviewing exceptions, click the **Finished** button.

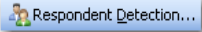
**Tip:** If you need to return to the processed data at a later point to complete reviewing exceptions, save the data to the Remark (RMK) format. This formats save the exception case colors and links to scanned images (if you are using an OMR/Image scanner) so that you may continue reviewing the

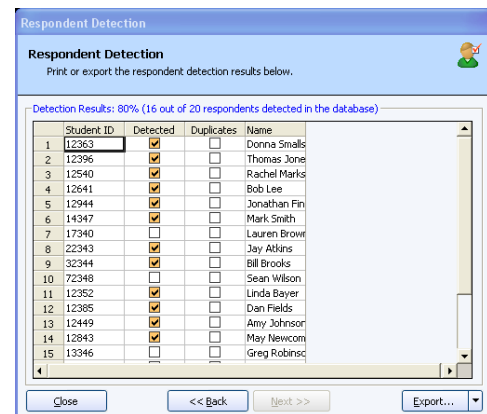
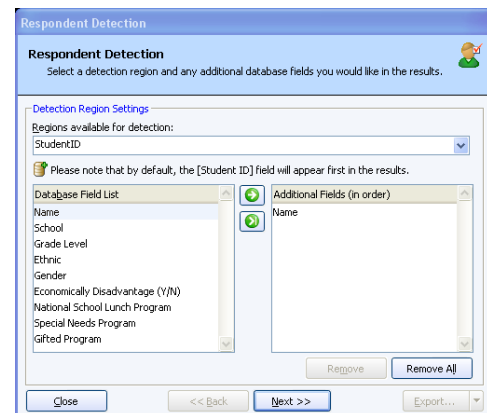
data. If the data is exported to other formats, these colors and images are not included in the exported data file. See Section 7.6 Saving Data for complete details on saving data.

## 6.8 Respondent Detection

Remark Classic OMR includes the ability to determine which respondents' forms have been processed, as well as locate duplicate respondents. This feature, called Respondent Detection, is used in conjunction with Database Lookup. If a region is linked to an external database using Database Lookup, the software provides a report of which respondents listed in the external database have been processed, not been processed or have been processed more than one time. For example, suppose you have a region on your form where the respondent fills in an ID number. You can link this ID number region to an external database that has all of the ID numbers of your expected group of respondents. You can then use Respondent Detection to compare IDs collected in the data set to IDs in the external database. Any time you use the Respondent Detection feature, you also have the option to return additional data from the external database if desired (this is not required to use Respondent Detection). When you process your forms, Remark Classic OMR confirms which ID numbers from the external database exist in the processed data. The software then provides a report showing found ID numbers, missing ID numbers and duplicate ID numbers. If you are returning additional regions, this information is also available in the report. You can save this report as a database or text file to use outside of Remark Classic OMR.

### To use Respondent Detection

- 1 Setup a form template that uses the Database Lookup feature. See Section 5.3.9 for complete details on using Database Lookup.
- 2 Process forms using the scanner. See Sections 6.2 and 6.3 for information about using the Read Wizard to process forms.
- 3 Once the forms have been processed and the data cleaned, select the **Tools** menu and then click **Respondent Detection**, or click . The **Respondent Detection** wizard appears.
- 4 From the **Regions available for detection** drop-down list, select the form template region you wish to use for detection.
- 5 If the region is linked to a database containing additional regions, you may optionally select those regions from the **Database Region List**. Use the green arrow to move the desired regions into the **Additional Regions** box. Any regions moved to the **Additional Regions** box are also used for detecting respondents.
- 6 Click the **Next>>** button to continue. The **Detection Results** window appears.
- 7 Use the **Detection Results** window to view your results. The main region on which you are basing the detection is listed first. You then see



a **Detected** column that marks the values that were detected. The **Duplicates** column is next, which marks any duplicate values that are found. After the **Duplicates** column, you see any additional return regions from the external database that you selected in Step 5 (if you selected any).

- 8 If desired, use the **Export** button to save the results to an external file. You may click the **Export** button to export the entire set of results, or use the arrow on the **Export** button to select which portions of the results to export. The export options are as follows:

Option	Function
Export	Exports all results (region, detected, missing, duplicates and additional regions).
Export Missing	Exports only the missing respondents, those that exist in the external database but were not processed as part of the data file.
Export Detected	Exports only the detected respondents, those that both exist in the external database and were processed as part of the data file.
Export Duplicates	Exports only the duplicate respondents, those that appear more than once in the data file. The software only detects duplicate entries that have also been verified as existing in the linked database.
Print Results	Prints all results to the default printer on your computer.

- 9 Click the **Close** button to return to the Remark Classic OMR Data Center.

## 6.9 Reviewing Duplicate Responses


Remark Classic OMR includes a feature to detect duplicate responses even when not using the Database Lookup feature with Respondent Detection, as described in the previous section. The Review Duplicates feature allows you to choose any region in the data grid in which to search for duplicates. When a duplicate entry is found, you are prompted to take one of four possible actions: review the duplicates, keep only the first duplicate record, keep only the last duplicate record or delete all duplicate records. During the review process, the data grid is automatically sorted on your duplicate identifier region so that you can easily review the data. This feature is useful if you accidentally process a form multiple times, or someone fills out a form multiple times when this is not permitted.

If you are using an OMR/Image scanner and capturing form images during scanning, when reviewing duplicates you see the scanned form images in the Image Viewer to assist you with making a determination in how to handle the duplicate entries.

### To use Review Duplicates

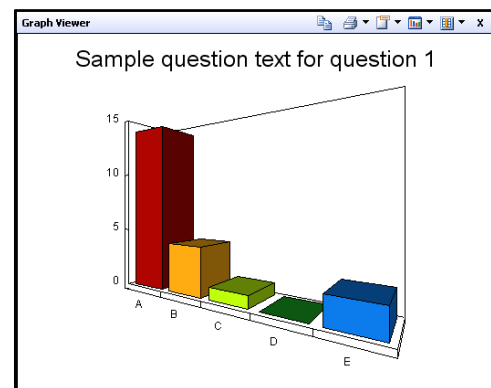
- 1 Open a form template and scan forms.









- 2 Once the data is collected and cleaned, select the **Tools** menu and then click **Review Duplicates**, or click  , to launch the **Review Duplicates** Task Pane. Alternatively, select **Review duplicates** from the Task Pane.
- 3 In the **Review Duplicates** Task Pane on the left side of the window, use the **Unique respondent identifier** drop-down list to choose a region to check for duplicate entries.
- 4 Click the **Search** button to begin the search for duplicate entries. The gold bar underneath The **Unique respondent identifier** box tells you whether duplicates were found. The data is sorted based on the duplicates that are found.
- 5 Determine the action you wish to take. If you want to review the duplicates before taking action, choose **Review duplicate records** in the **Action** drop-down list and then click the **Execute** button. Remark Classic OMR highlights any sets of duplicate records it finds. You may use the green arrows in the **Navigate** area to move between records. The **Next Record** arrow takes you to the next duplicate record within the same group. The **Next Group** arrow takes you to the next group of duplicates (you may have more than one set of duplicates within the same region). Similarly, the **Previous Record** arrow takes you back to the previous duplicate record within the same group, and the **Previous Group** record takes you back to the previous group of duplicate records.
- 6 If you have chosen to review the duplicate records, you have two options. You can choose a specific record and delete it manually by clicking the **Delete** button. Or, you may click the **Finish** button and then review the region again. Then to perform a mass function, in the **Action** drop-down list, choose the appropriate action: **Keep only first duplicate records**, **Keep only last duplicate record** or **Delete all duplicate records**. Any one of these three choices applies to all sets of duplicate records within the region.
- 7 If you choose any action that causes records to be deleted, you receive a warning message to ensure that you want to delete the records. Note that once the records are deleted, they cannot be recovered (unless you process the forms again). If you are sure you want to proceed, click the **Yes** button. The requested action is taken.
- 8 If you wish to search for more duplicates in other regions, repeat steps 3 through 7.
- 9 When you are finished reviewing duplicates, click the **Finish** button.  
Click the **Back** arrow underneath **Review Duplicates** to return to the full Task Pane.

## 6.10 Graph Viewer

Remark Classic OMR includes a Graph Viewer at the bottom of the screen to view quick results of processed data. The graph viewer displays a graph of the data being processed, indicating the frequency of each response chosen (an item analysis). Click in any cell containing data to view a graph of the responses. Please note that the graph viewer is not grading data and that it may slow down the processing speed. To show and hide the Graph Viewer, select the **View** menu and choose **Graph Viewer**. The Graph Viewer has many options, which are summarized in the following table:





Icon	Option	Description
	Copy	Click the <b>Copy</b> button to copy the graph to the Windows clipboard. The graph can then be pasted into another application.
	Print	Click the <b>Print</b> button to print the current graph. If you drop down the arrow on the <b>Print</b> icon, you can choose whether to print in monochrome or color (if your printer supports it).
	Graph Title	Toggle the <b>Graph Title</b> icon to turn the title over the graph on and off. Click the down arrow on the <b>Graph Title</b> icon to choose what to display: <b>None</b> (no title), <b>Question Name</b> , or <b>Question Text</b> . Please note that the font size used for the Graph Title updates automatically based on the amount of text being displayed.
	Graph Type	Click the <b>Graph Type</b> icon to cycle through the various graph types. Alternatively, use the drop-down arrow on the <b>Graph Type</b> icon to choose a graph type: <b>3D Bar</b> , <b>2D Bar</b> , <b>3D Pie</b> , <b>2D Pie</b> , <b>3D Area</b> , <b>2D Area</b> and <b>Line</b> .
	Graph Data	Click the <b>Graph Data</b> icon to cycle through the various graph options. Alternatively, use the drop-down arrow on the <b>Graph Data</b> icon to choose what to graph: <b>Frequency</b> (base the Y axis on the data set using frequencies), <b>Percent Auto Scale</b> (allow Remark Classic OMR to choose the best Y axis percentage scale for your data) or <b>Percent Standard Scale</b> (use a standard percentage scale for the Y axis, such as 0-100%).
	Close Graph Pane	Click the <b>X</b> to close the Graph Viewer. You can always reopen it using the <b>Tools</b> menu.

## 6.11 Test Import Wizard

Remark Classic OMR has the ability to import test information from the ExamView software from eInstruction. ExamView is used to generate tests. The test information can be imported into Remark Classic OMR to streamline the grading process. The test questions, answer items and answer key are all imported with the test. When correlating test information to state standards or text book objectives, Remark Classic OMR can also report on how well students are mastering those standards and objectives. These items are reported as learning objectives in the Remark Classic OMR analysis. Remark Classic OMR also has the ability to import multiple versions of tests (to minimize student cheating).

**Note:** The Test Import Wizard can only be used with an OMR scanner (not an OMR/Image scanner). Your scanner must be in OMR mode only (set up and set as the default under **Tools|OMR Scanner|OMR Scanner Properties**) and you will not be able to capture the scanned form images.

Utilizing ExamView files can be broken down into the following steps:

- Create the test in ExamView
- Export the test to the XML format
- Import the test in Remark Classic OMR via the ExamView Wizard
- Scan the tests
- Grade the tests

**Note:** The ExamView Import Wizard relies on XML files from ExamView. Only legacy versions of ExamView support the XML export. This feature remains in Remark Classic OMR for any ExamView legacy users who still want to use this feature.

### 6.11.1 Creating Tests in ExamView

The first step in this process is to create a test in ExamView (version 3.5 or later is supported). Please see the ExamView user's documentation for detailed instructions on creating tests. Please note that you may also generate multiple versions of a test, if desired. Multiple versions of a test minimize the risk of student cheating by scrambling the order of the questions on the page(s). Once a version of the test has been created, ExamView offers a scramble option to rearrange the order of the questions. When test order is scrambled, each test should be saved separately with a test ID to differentiate versions.

**Note:** Remark Classic OMR can import tests with randomized questions. However, it cannot import tests with randomized answer choices.

### 6.11.2 Exporting Tests from ExamView

Once a test is created, it must be exported in XML format for Remark Classic OMR to import.

**Note:** If your version of ExamView does not support exporting to XML, you will not be able to use the ExamView Import Wizard.

#### To export tests

- 1 Open the test in ExamView.
- 2 Select the **File** menu and then click **Export**.
- 3 In the **File name** box, type the desired file name.
- 4 In the **Save as type** box, select the **ExamView XML (.xml)** format.
- 5 Click the **Save** button to save the file.

**Note:** If you are using multiple versions of a test, you must export each version to a separate XML file.

The test files are now ready to be imported into Remark Classic OMR. Remark Classic OMR creates a new form template and a grade template that apply to your test.

### 6.11.3 Importing ExamView Files in Remark Classic OMR

After exporting tests from ExamView, you may open them in Remark Classic OMR using the Test Import Wizard. These tests include the answer key and can optionally include learning objectives so that tests can easily be graded and student mastery of specific objectives can be measured. Remark Classic OMR can read multiple choice, true/false and yes/no questions only. All other question types are ignored during the import process.

### To import ExamView test files

- 1 If not already running, start the **Remark Classic OMR** software.
- 2 Select the **Tools** menu, click **Test Import** and then click **ExamView Import Wizard**.
- 3 Click the **Next>>** button to begin the wizard.
- 4 In the **Step 1** window, select the Remark Classic OMR form template that represents the form you will be scanning.
- 5 Click the **Next>>** button to continue.
- 6 In the **Step 2** window, select the ExamView file that you exported. If using multiple test versions, select the first version. Mark the checkboxes for **Include Learning Objectives**, **National Objectives**, **State Objectives** and/or **Local Objectives** to have Remark Classic OMR include this information in the reports. By including the objectives, you are able to see how students are performing against these measures. Each objective is reported in the analysis as a separate learning objective of the main test.
 

**Note:** The Include Objectives options are enabled based upon the test information you exported from ExamView.
- 7 Click the **Next>>** button to continue.
- 8 In the **Step 3** window, select other versions of this test that you have generated in ExamView. Use the **Add** button to add test versions; use the **Remove** button to remove unwanted tests. If you are only using one version of the test, skip this step.
- 9 Click the **Next>>** button to continue.
- 10 If importing multiple versions of a test, the **Step 3A** window appears. In this window, select a question from the **Question** drop-down list that is used to identify the version of the test. You must have a question in your form template that identifies various versions of a form template.
- 11 In the **Step 4** window, enter a name for the new form template and grade template for this import process. You may either use the default name that Remark Classic OMR provides, or click the ellipsis (...) next to each template name to enter new file names.
- 12 Click the **Build** button to continue.
- 13 Click the **Finish** button to open your new template and begin collecting data.

Upon completion of the Test Import wizard, Remark Classic OMR generates a new form template and answer key to be used to scan and grade completed tests.

### 6.11.4 Scanning Completed Tests

Once you have imported your ExamView files, you may scan the completed tests.

#### To scan tests

- 1 Upon finishing the ExamView Import wizard, your template opens automatically. If the template is not open, select the **File** menu, click **Open Template** and then select the template you previously created with the ExamView wizard.
- 2 Click the **Tools** menu and then click **Read Wizard**.
- 3 Place the completed tests in your scanner and configure the Read Wizard with the desired options. Click the Read button when you are ready to start scanning forms.

**Tip:** Please see earlier sections of this chapter for detailed information about scanning options.

Once all of the forms are scanned you are ready to grade the test. We recommend saving the data to use at a later point in time.

#### To save the data

- 1 Select the **File** menu and then click **Save Data**.
- 2 In the **File name** box, enter a name for the data file.
- 3 Choose a file type in the **Save as type** list.
- 4 Click the **Save** button to save the data.

**Tip:** Please see Chapter 7 for more detailed information about saving data.

#### 6.11.5 Grading Tests

Once all of the forms have been scanned, you may grade the test using Remark Classic OMR's Easy Grade or Grade Wizard functions. Note that because you imported the test from ExamView, all of the necessary test information has already been saved, including the answer key and learning objectives. Therefore using Easy Grade will typically provide the needed test results. You may use the Grade Wizard to reconfigure any of your grading options.

**Tip:** Please see the Remark Quick Stats User's Guide PDF under Start|Programs|Remark Classic OMR 4|Documentation for more information about test grading in Remark Quick Stats.

#### To grade tests

- 1 Select the **Tools** menu, click **Analysis** and then click **Easy Grade** or **Grade Wizard**.
- 2 If using Easy Grade, the Remark Quick Stats window opens to show your grade results. If using the Grade Wizard, Remark Quick Stats launches the Grade Wizard based on the definitions from the ExamView file. You may modify any of the information by clicking the **Next>>** button in the Grade Wizard window and making your changes.

# Working with Your Data

## 7.1 Overview

This chapter explains the basics of data manipulation and using the data grid in the Remark Classic OMR Data Center, and includes the following:

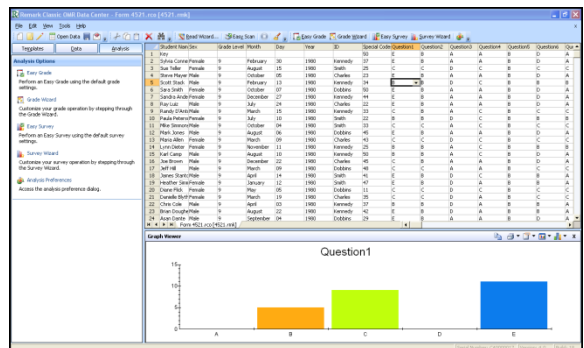
- Understanding the data grid (Section 7.2)
- Editing the data grid (Section 7.3)
- Sorting data (Section 7.4)
- Spell checking data (Section 7.5)
- Saving data (Section 7.6)
- Printing data (Section 7.7)
- Emailing data (Section 7.8)
- Send wizard (Section 7.9)
- Opening grid data (Section 7.10)
- Logging changes (Section 7.11)

The Remark Classic OMR software requires a form template file for each type of form that you want to process. For each form template created, there is a corresponding data grid. The Remark Classic OMR Data Center uses a data grid to store data recognized from forms. The data read from one form are considered a single record and display in one grid row. Each column in the grid represents one variable or question on the form, as defined in the form template.

## 7.2 Understanding the Data Grid

The Remark Classic OMR data grid window employs a spreadsheet style view of the form template to display recognized data. When a form template is open, each grid column corresponds to an item or question on the form, as it was defined in the form template. Hover your mouse over any column header to see information pertaining to the specific item (question).

The grid employs two cell types to store data: text and list. The cell type depends on the kind of region being used. Barcode regions, Input regions that do not contain Database Lookup information and OMR regions set to the Grid, Add or Binary Data Type use text cells. Text cells are used to type information manually. All other OMR regions and Input regions that utilize Database Lookup information use list cells. List cells contain a drop-down list of possible answer



items (labels) as they are defined in the form template. See Section 7.3.2 Changing Cell Contents later in this chapter for information on how to edit individual cells.

If an individual region contains more than one question, by default the corresponding column headers also contain question numbers. For example, Eval2 would correspond to the second item of a region titled Eval. If you entered individual Question Names in the OMR region properties of the form template, these Question Names appear instead (see Section 5.3.2.b Question Names for more detailed information about Question Names).

## 7.3 Editing the Data Grid

The data grid window behaves like a spreadsheet. You can cut, copy and paste selections to and from the grid. Additionally, you can change the contents of individual grid cells by clicking in a cell. This section explains the basics of manipulating data within the grid and includes the following:

- Making selections
- Changing cell contents
- Cutting, copying, pasting and deleting
- Resizing, inserting and deleting rows
- Using find and replace

### 7.3.1 Making Grid Selections

The following table lists the different methods for making selections in the grid:

Selection Area	Method
Single Cell	Click in it. Use the mouse, tab or arrow keys to move from cell to cell. Double clicking within a cell puts you in edit mode.
Multiple Cells	Click the upper, left-hand corner of the desired selection, drag the mouse to the lower, right-hand corner and release.
Single Column	Click the column header.
Multiple Columns	Click and drag a range of column headers or click a beginning column header, press and hold the <b>Shift</b> key, and then click an ending column header.
Single Row	Click the row header.
Multiple Rows	Click and drag a range of row headers or click a beginning row header, press and hold the <b>Shift</b> key, and then click an ending row header.
Entire Grid	Select the <b>Edit</b> menu and then click <b>Select All</b> , or click the upper, left-most grid header cell.

### 7.3.2 Changing Cell Contents

The data grid allows in-cell editing by clicking within a particular cell. The grid employs two cell types to store data: text and list. The cell type depends on the kind of region being used. Each cell changes to either a text box or list box depending on its region type. Grid, Add and Binary OMR regions, barcode regions and Input regions without the use of Database Lookup are considered text regions. You do not have a drop-down box for these region types. All other types of OMR regions and Input regions using Database

Lookup are considered list regions and do have a drop-down box from which you can choose responses, as they were defined in the form template (labels).

#### To change the contents of a text cell

- 1 Select the cell by clicking within its borders.
- 2 Type the desired cell contents into the cell and press **Enter**.

#### To change the contents of a list cell

- 1 Select the cell by clicking within its borders.
- 2 Click the down arrow on the cell's list box.
- 3 Click the correct response.

**Note:** An asterisk appears next to selected responses.

- 4 If more than one response is permitted, repeat steps 2 and 3 to select more than one response.


Editing a cell removes any exception case colors that may have been present (e.g., yellow for a BLANK response).

### 7.3.3 Cutting, Copying, Pasting and Deleting

The Remark Classic OMR template grid supports normal Windows clipboard functions: cut, copy and paste. In addition, it supports the Paste Special command, which allows you to copy the contents of one cell and then paste it into multiple cells.

**Tip:** This section assumes an understanding of how to make grid selections in order to select grid cells. See Section 7.3.1 Making Grid Selections for detailed information about this topic.

#### To cut data from the grid

- 1 Select an area to cut. Select the **Edit** menu and then click **Cut**, click  or press **Ctrl+X**.


The selected data are cut from the grid and placed on the Windows clipboard.

#### To copy grid data

- 1 Select an area to copy.
- 2 Select the **Edit** menu and then click **Copy**, click  or press **Ctrl+C**.

The selected data are copied to the Windows clipboard.


#### To paste data from the clipboard to the grid

- 1 Select the area to which you want to paste.
- 2 Select the **Edit** menu and then click **Paste**, click  or press **Ctrl+V**.

The data on the Windows clipboard are pasted into the selected grid cell(s).

**Note:** You do not need to select the same amount of space in the grid as the amount of space you copied to the clipboard.

### To use Paste Special

- 1 Select a single cell containing the data you wish to copy.
- 2 Select the **Edit** menu and then click **Copy**, or click .
- 3 Select the cells in which you want to paste the data.
- 4 Select the **Edit** menu and then click **Paste Special**.

The data on the Windows clipboard are pasted into the selected grid cells.

### To delete grid data

- 1 Select the area that you want to delete.
- 2 Select the **Edit** menu and then click **Delete**, right click in a cell and select **Delete**,


, or press the **Delete** key. You may also delete an entire grid row by clicking the row header or clicking in a cell in the row and then right clicking and selecting **Delete Row** or by selecting the **Edit** menu and then clicking **Delete Row**.

## 7.3.4 Resizing, Inserting and Deleting Rows

You can change the number of rows contained in each data grid by adding rows to the end of the grid, inserting rows into the grid or deleting rows from the grid. Note that during scanning, the grid expands as needed to hold your data; you do not need to manually add rows to the grid.


**Tip:** This section assumes an understanding of how to make grid selections in order to select grid cells. See Section 7.3.1 Making Grid Selections for detailed information about this topic.

### To insert row(s) into the grid

- 1 Select the desired insertion point by clicking a grid cell.
- 2 Select the **Edit** menu and then click **Insert Row** to insert a row, or click . Alternatively, select **Shift+Insert** on the keyboard, or right click within the cell and choose **Insert Row**. The row is inserted above your current selection point.

**Note:** You may also select multiple rows to insert the same number of rows above the selection (e.g., select two complete rows to insert two rows above the highlighted rows).

### To delete rows from the grid

- 1 Select the rows to delete.
- 2 Select the **Edit** menu and then click **Delete Row**, or click . Alternatively, select **Shift+Delete** on the keyboard, or right click the mouse and then select **Delete Row**.



**Tip:** You may delete multiple rows by selecting more than one grid row. Use the row headers to select the rows.

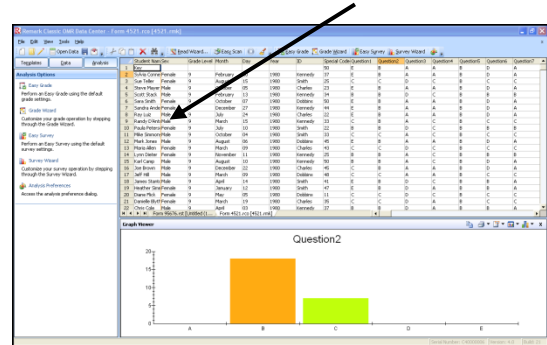
### 7.3.5 Freezing Columns and Rows

You can freeze specific columns and rows in the data grid so that as you scroll, the frozen columns and rows are still visible. For example, if grading exams, you might want to freeze the Student Name column so you can see the students as you scroll. You can freeze a maximum of 10 columns and rows.

#### To freeze columns and rows

- 1 With your data set open, select the **View** menu.
- 2 To freeze rows, select **Freeze Rows**. Then choose the number of rows to freeze.
- 3 To freeze columns, select the **Freeze Columns**. Then choose the number of columns to freeze.

Your selected rows/columns are frozen and delineated with an orange line. If you wish to return to normal viewing, select the **View** menu and choose **Unfreeze Rows** or **Unfreeze Columns**.




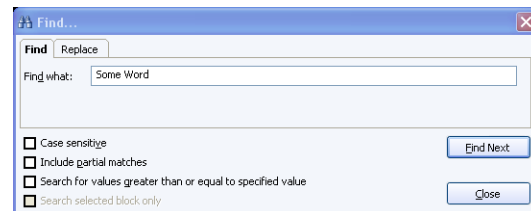
### 7.3.6 Using Find and Replace

The Remark Classic OMR Data Center provides find and replace commands for locating and replacing text. You can search for each occurrence of characters, including uppercase and lowercase letters, whole words and parts of words.

By default the Data Center searches the entire data grid when performing a find and replace operation. However, you can search a specific region by highlighting the area you would like to search prior to using Find and Replace. (See Section 6.3.1 See Making Grid Selections.)

#### To find text

- 1 Select the **Edit** menu and then click  **Find**, or click **Find**, or click **Find**.
- 2 If searching for text, enter the search text in the box titled **Find what**.
- 3 Select the other options you want to use to control the search.



Search Option	Result
Case sensitive	Mark this checkbox to make the search case sensitive.
Include partial matches	Mark this checkbox to search for part of the text (does not require the entire contents of the cell to match what you have entered in the Find what box).
Search for values	If searching for numeric data, mark this checkbox to search for

Search Option	Result
greater than or equal to specified value	numeric values that are greater than or equal to the value you have typed in the Find what box.
Search selected block only	Mark this checkbox to search in the selected cell(s) only.

4 Click the **Find Next** button.

If Remark Classic OMR locates a match, the grid scrolls to display the cell where the match is found.


5 Make any necessary changes to the grid.

6 Click **Find Next** to continue searching.

7 When you have completed searching the data, click the **Close** button.

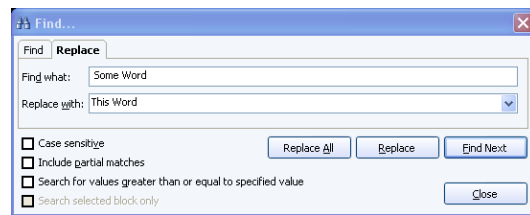
### To find and replace text

1 Select the **Edit** menu and then click

**Replace**, or click  .

2 Enter the search text in the box titled **Find what**.

3 Select the other options you want to use to control the search.



Search Option	Result
Case sensitive	Mark this checkbox to make the search case sensitive.
Include partial matches	Mark this checkbox to search for part of the text (does not require the entire contents of the cell to match what you have entered in the Find what box).
Search for values greater than or equal to specified value	If searching for numeric data, mark this checkbox to search for numeric values that are greater than or equal to the value you have typed in the Find what box.
Search selected block only	Mark this checkbox to search in the selected cell(s) only.

4 To replace items located in the search, enter the replacement text in the box titled **Replace with**.

5 Choose one of the following search commands by clicking the appropriate button:

Search Command	Result
Find Next	Locate the next item meeting search criteria.
Replace	Locate and automatically replace the next item meeting

Search Command	Result
	search criteria.
Replace All	Locate and automatically replace all items meeting search criteria.

6 When you have completed searching the data, click the **Close** button.


## 7.4 Sorting Grid Columns

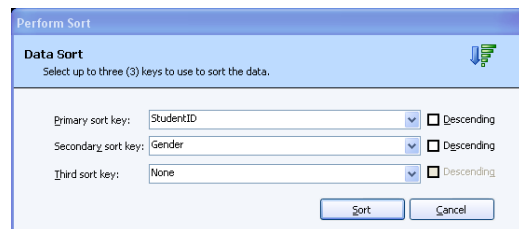
Columns in the data grid can be sorted according to the values in a specific region. Data can be sorted in ascending or descending order. For example, you can sort your data by ID number or respondent name. There are two ways to sort data: right clicking a column header or using the menus.

### To sort data by right clicking the mouse

- 1 Select the header of the column by which you want to sort the data (the entire column is highlighted). (See Section 7.3.1 Making Grid Selections.)
- 2 Right click the column header, click **Sort** and then click **Ascending** or **Descending**. The entire data set is sorted according to your selection.

### To sort data using the menus

- 1 Select the **Edit** menu and then click **Sort**, or click .
- 2 In the **Primary sort key** box, use the drop-down list to choose a region on which to base the sort operation.
- 3 Mark the checkbox for **Descending** if you want the data to be sorted in descending order. Leave this checkbox blank to sort the data in ascending order.
- 4 If you want to sort the data by more than one criterion, select the appropriate regions on which to sort in the **Secondary sort key** and **Third sort key** boxes.
- 5 When finished selecting regions, click the **Sort** button.



The image shows a dialog box titled "Perform Sort". It has a subtitle "Data Sort" and a note "Select up to three (3) keys to use to sort the data." Below this, there are three rows of controls:

- Primary sort key: A dropdown menu with "StudentID" selected and a checkbox for "Descending" which is unchecked.
- Secondary sort key: A dropdown menu with "Gender" selected and a checkbox for "Descending" which is unchecked.
- Third sort key: A dropdown menu with "None" selected and a checkbox for "Descending" which is unchecked.

At the bottom right of the dialog are "Sort" and "Cancel" buttons.

The entire data set is sorted according to your selection(s).


## 7.5 Spell Checker

Remark Classic OMR includes a Spell Checker that checks Data Entry Input regions, Barcode regions and OMR regions for misspellings. The spell checker works from the dictionary in the Remark Classic OMR Preferences. To choose a dictionary, select

**Tools|Preferences|File Storage Locations**, or click .

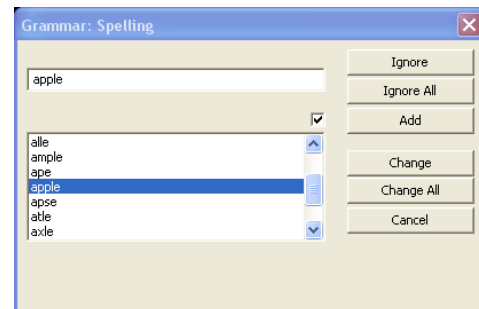
## To use the Spell Checker



- 1 Select the **Tools** menu and then click **Perform spell check**, or click .
- 2 In the **Spell Checker** window, choose the desired options:

Option	Description
Search Input regions	Mark this checkbox to perform spell checking on Input regions where manual data entry is expected.
Search barcode regions	Mark this checkbox to perform spell checking on Barcode regions.
Search OMR regions	Mark this checkbox to perform spell checking on OMR regions.
Ignore words with numbers	Mark this checkbox to skip spell checking any numeric text.
Ignore words in upper case	Mark this checkbox to skip spell checking on words that begin in upper case.
Ignore words in mixed case	Mark this checkbox to skip spell checking on any words that use mixed case capitalization.

- 3 Click the **Start** button to begin the search. When an item matches your specified criteria, the Spell Checker shows you the flagged word and offers suggestions if possible. You may choose a suggestion or modify the flagged word and then choose **Change** or **Change All** to make the modification. You may also choose **Add** to add the word to your dictionary so that it is not flagged again. Alternatively, you may choose **Ignore** or **Ignore All** to keep the word as is, and if choosing **Ignore All**, not have it flagged again during this search. Choose **Cancel** to stop the Spell Checker.
- 4 When the Spell Checker is finished searching the grid, it alerts you that it is complete. Click the **OK** button to return to the main Spell Checker window.
- 5 Click the **Finished** button to complete the Spell Checker process.



## 7.6 Saving Data

You can save the data in the data grid to dozens of different file formats. The Remark file format was specifically designed to optimize the data storage process in the Remark Classic OMR software.

**Tip:** When working with data in Remark Classic OMR, use the Remark file format (RMK). This is the only format that preserves the link between the data and the exception colors and stored images\* (\*if using an OMR/Image scanner). Export data to other formats after you have collected and cleaned all of your data.

When saving data, you have the option of using Save Data or Save Data As. The Save Data option can be used to save a data set for the first time or to overwrite the current data set. The Save Data As option allows you to save the current data set with new parameters (e.g., new file name, different directory, different file type, etc.)

The following table lists the different save file formats, their extensions and a brief description:

<b>File Format</b>	<b>Extension</b>	<b>Description</b>
Remark	RMK	Remark Classic OMR format; saves grid exception colors and image links* (*OMR/Image scanners only)
SQL Server 2000-2005	MDF	Microsoft SQL Server format
Oracle 7.4 and later	*.*	Oracle format
Access 2007-2010	ACCDB	Microsoft Access 2007 and 2010 format (only available if the Access 2007 or 2010 database engine is installed)
Access 2000-2003	MDB	Microsoft Access 2000-2003 format
Access 95-97	MDB	Microsoft Access 95-97 format
Access 2.0	MDB	Microsoft Access 2.0 format
Access 1.0	MDB	Microsoft Access 1.0 format
Excel 2007-2010	XLSX	Microsoft Excel 2007 and 2010 format (only available if the Access 2007 or 2010 database engine is installed); existing files can only be appended, not overwritten
Excel 97-2003	XLS	Microsoft Excel 97-2003 format
Excel 95	XLS	Microsoft Excel 95 format
Excel 4.0	XLS	Microsoft Excel 4.0 format
Excel 3.0	XLS	Microsoft Excel 3.0 format
Questionmark	QSF	Perception Questionmark format (save only)
SPSS	SAV	SPSS 16 format
SPSS Legacy	SAV	SPSS 6 format
Survey Pro	SRV	Survey Pro standard format (Apian Software)
Survey Pro STL	STL	Survey Pro STL format (Apian Software)
ASCII [commas]	ASC	Comma delimited ASCII
ASCII [tabs]	ASC	Tab delimited ASCII
Spreadsheet [commas]	TXT	Comma delimited ASCII with quotes around non-numeric data

<b>File Format</b>	<b>Extension</b>	<b>Description</b>
Spreadsheet [tabs]	TXT	Tab delimited ASCII with quotes around non-numeric data
Survey System	DAT	The Survey System format (Creative Research Systems)
dBase V	DBF	dBase V format
dBase IV	DBF	dBase IV format
dBase III	DBF	dBase III format
Paradox 5.X	DB	Paradox 5.X format; existing files may only be overwritten (there are no append options)
Paradox 4.X	DB	Paradox 4.X format; existing files may only be overwritten (there are no append options)
Paradox 3.X	DB	Paradox 3.X format; existing files may only be overwritten (there are no append options)
Lotus WK3	WK3	Lotus Works 3 format; existing files may only be overwritten (there are no append options)
Lotus WK1	WK1	Lotus Works 1 format
Lotus 1-2-3	WKS	Lotus 1-2-3 format
LXR Test	MRG	LXR Test format
Report	RPT	Fixed format ASCII, cell text padded or truncated to specified record length
Data Interchange Format	DIF	Standard format using file header and data section
CCI Assessment	DAT	CCI Assessment format; existing files may only be overwritten (there are no append options)
XML	XML	Extensible Markup Language format
HTML	HTM	Hypertext Markup Language
ODBC	*.*	Open Database Connectivity
Custom	ASC, TXT	Custom Text format
Database Update	XLS, XLSX, MDB, ACCDB	Updates an existing database with new data (e.g., adds missing information, overwrites existing information).
ODBC Database Update	*.*	Updates an existing ODBC database with new data (e.g., adds missing information, overwrites existing information).

**To save grid data**

Before saving data to another data format, we suggest saving a copy of the data to the Remark (RMK) format to preserve exception colors. Once your project is complete, you may delete or archive the RMK file.

When exporting to a specific format (e.g., Access, Excel, etc.) make certain your data meets the format's specific requirements (see Start|Programs|Remark Classic OMR 4|Documentation|Remark Classic OMR 4 Supported File Formats for more information).

- 1 After processing forms, select the **File** menu and then click **Save Data**, or click

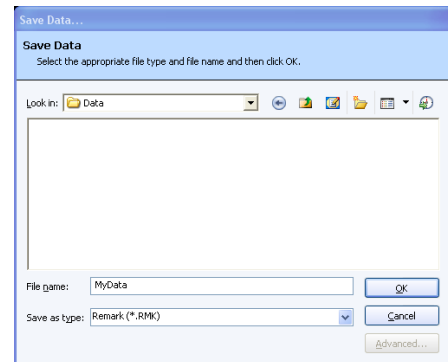


, if saving the data set for the first time or to overwrite the data. Click **Save Data As** to save the data with new parameters.

**Note:** Clicking the toolbar button for **Save Data** overwrites the current data set.

If saving for the first time or using **Save Data As**, the **Save Data** window opens, allowing you to choose a file name, a file type, the directory in which you would like the file saved and **Advanced** saving options.

- 2 Select the desired directory location using the **Look in** drop down box.
- 3 Enter a name in the box titled **File name**.
- 4 Select the desired output format in the box titled **Save as type**.
- 5 If saving to a database type that supports internal table names, enter a table name in the box titled **Table name**.



**Note:** Each database format has different table name limitations. Refer to your database documentation for information on table name limitations. When saving to a database where one or more regions are too small to hold the data being saved, Remark Classic OMR attempts to resize the database column so that it can hold the data being saved.

- 6 When exporting, you can save the column headers for certain formats by selecting the **Save headers** checkbox. The **Save headers** checkbox only displays when appropriate.
- 7 Click the **OK** button to save the file.

### 7.6.1 Advanced Saving Options

When saving data to certain formats, you have the option of setting advanced parameters. The Advanced Save window shows you each question and pertinent information about the question (region). You can then choose options about the region that you want included in your database. This feature can be useful if you are saving to a database format that has specific requirements. You can temporarily override the form template settings by using the advanced parameters.

**Note:** Setting parameters in the Advanced Save window does not make any changes to the form template.

The following advanced features are available (note that what is available depends on the file format selected):

Option	Description
Include	Mark this checkbox to include the region (question) in the data file.
Name	Use this column to enter a new region name to be used in the exported data file, if desired. Changing the region name in this window does not affect the region's name in the form template.
Data Type	Use this column to change the data type for this question.
Size	Use this column to specify a region size for the data for this question. Do not specify a size that is smaller than what is in your data.

### To use advanced saving options

- 1 Select the **File** menu and then click **Save Data As**.

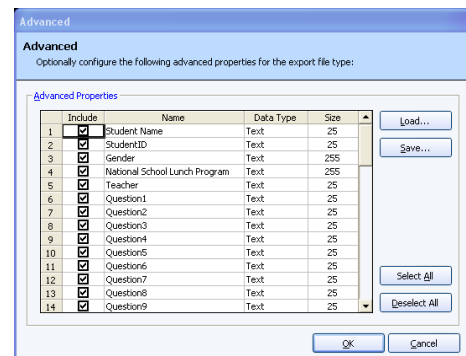
The **Save Data** window opens, allowing you to choose a file name, a file type, the directory in which you would like the file saved and advanced saving options.

- 2 Select the desired directory location using the **Look in** drop down box.
- 3 Enter a name in the box titled **File name**.
- 4 Select the desired output format in the box titled **Save as type**.
- 5 If saving to a database type that supports internal table names, enter a table name in the box titled **Table name**.
- 6 Click the **Advanced** button.
- 7 [Optional] If you have previously saved a definition file for this data set, click the **Load...** button to locate the appropriate INI file containing your settings. Otherwise, continue to Step 8 to build a new data file.
- 8 Make any desired changes in the **Include**, **Name**, **Data Type** or **Size** columns.

**Note:** If using an OMR/Image scanner and capturing form images, you can save the path of the form images or the actual form images to the file by using the Advanced options. Scroll to the bottom of the Names list to mark the form images.

If you want the actual image to be stored, change the data type to binary. If the data type is not binary, the path to the images is stored.

- 9 [Optional] If desired, click the **Save...** button to save the settings to a configuration file (.ini file). You can then open this configuration file for future save operations with this same form template. This feature can save time when saving future data sets.
- 10 Click the **OK** button to save the changes.
- 11 In the **Save Data** window, click the **OK** button to save the data.



### 7.6.2 Custom Format

The Custom format allows you to create a customized text file. This format is useful for exporting data into a database that has very specific requirements. The format can also be used to break apart rows of data into multiple rows. For example, if you are processing an attendance sheet containing records for multiple students in a single row, you can use the Custom format to separate the data into one record for each student.



**Note:** When saving to an existing custom data file, regions are not matched by region name; instead they are matched by position in the data file. Ensure that the data you are saving matches the existing custom wizard data file before appending new records.

The following table summarizes the screens and options that are found in the Custom Wizard and the corresponding descriptions of each option:

<b>Custom Wizard Screen</b>	<b>Option</b>	<b>Description</b>
Step 1: Configuration File	Configuration File	Use the <b>Browse...</b> button to locate a previously saved configuration file that you created when using the Custom Wizard (optional).
Step 2: File Type and Start Row	File Type	<i>Delimited:</i> Regions are separated by a delimiter, such as a comma or tab. <i>Fixed Width:</i> Regions are aligned at fixed character spaces.
	Automatically format questions that allow multiple responses	Mark the <b>Automatically format questions that allow multiple responses</b> checkbox to automatically set formatting for questions that allow more than one answer choice (e.g., (1,5,12) becomes 1 5 12).
	Start export at row	Enter the row number that you want to use as the first record in the exported data file. All rows from this point forward are included in the data file. Enter 0 to include region names as the first record.
<b>Note:</b> Step 3 changes based on whether you select Fixed Width or Delimited for the File Type in Step 2. Items that correspond with each type are noted.		
Step 3: Column Delimiter and Text Qualifier ( <i>Delimited Regions Only</i> )	Column Delimiter	Select the character to use to separate the columns in the data file: Comma, Tab, Semi-colon, Space, Other.
	Text Qualifier	Select the character to use to qualify text. Textual responses are encapsulated within these characters. Options include: None, double quote ("), single quote (').
Step 3: Region Width and Padding ( <i>Fixed Width Regions Only</i> )	Region Size	The maximum number of characters allowed in the region.

Custom Wizard Screen	Option	Description
	Start Position	The position, in characters, where the region begins. For example, if your region sizes are 25, the first region starts at position 1 and the second region starts at position 26 (25 characters later).
	Pad With	Enter the character to use to pad the region (typically a space character).
	Pad On	Select whether to pad the region on the left or right of the text that resides in the region.
Step 4: Record Delimiter	Record Delimiter	Sets the delimiter to be used to separate records: Carriage Return/Line Feed, Carriage Return, Line Feed, Other.
Step 5: Region Exclusion and Record Breaks	Exclude	Mark the <b>Exclude</b> checkbox to exclude the region listed from the data file.
	Break After	Mark the <b>Break After</b> checkbox to start a new record in the data file after this region.
	Every Record	Mark the <b>Every Record</b> checkbox to include the region in every record of the data file (e.g., repeat the region for each record).

**To use the Custom format**

**1** Select the **File** menu and then click **Save Data As**.

The **Save Data** window opens, allowing you to choose a file name, a file type, the directory in which you would like the file saved and advanced saving options.

**2** Select the desired directory location using the **Look in** drop down box.

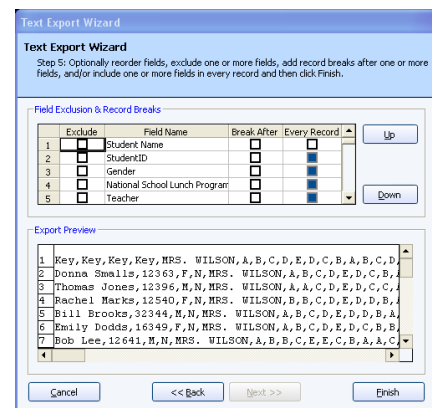
**3** Enter a name in the box titled **File name**.

**4** Select the **Custom (\*.ASC, \*.TXT)** format in the box titled **Save as type**.

**5** Click the **OK** button.

**6** If you have used the Custom Wizard format previously and have a saved configuration file that applies to this data set, click the **Browse...** button to locate the configuration file. Otherwise, click the **Next>>** button to begin creating a new configuration file.

**7** Select the options you wish to use to customize



your data set. Each option is described in the previous table. Use the **Next>>** button to navigate from screen to screen.

- 8 When finished, click the **Finish** button.
- 9 When the **Save Text Export Configuration** window appears, click the **Yes** button to save your settings to a file that you can use later when saving data. If you do not wish to save this configuration file, click the **No** button. If you are not saving the configuration file, the data file is saved when you click the **No** button. Continue with the next steps if you are saving the configuration file.
- 10 [Optional] If saving the configuration file, in the **Save Text Export Configuration As** box, select a location in which to save the configuration file in the Save in box.
  - Enter a name for the file in the **File name** box.
  - Leave the **Save as type** box set to **Text Export Configuration Files (\*.tec)**.
  - Click the **Save** button to save the file and create the data file.

### 7.6.3 Database Update Format

The database update format allows you to update an existing database based on the data in the Remark Classic OMR data grid (Access or Excel). The data are matched to the existing database by the region names and a mapping process. When saving to this format, you map the regions in the Remark Classic OMR data to the regions in the existing database. You also choose a question to be the record identifier. If data corresponding to the unique record identifier exists in the database it is updated with what is in Remark Classic OMR when the identifiers are matched. For example, if you are conducting a survey that collects demographic information, and include for a respondent identifier on your form, you could use the identifier as the record ID to update an external database using the Database Update format. During the save process, Remark Classic OMR attempts to find the Student ID in the database and then updates the data regions associated with that student. If the student ID is not found, you have the option of adding the record to the external database.

#### To use the Database Update format

- 1 Select the **File** menu and then click **Save Data As**.

The **Save Data** window opens, allowing you to choose a file name, a file type, the directory in which you would like the file saved and advanced saving options.

- 2 Select the desired directory location using the **Look in** drop down box.
- 3 Select a file to update, which fills the **File name** box.
- 4 Select the **Database Update (\*.ACCDB, \*.MDB, \*.XLSX, \*.XLS)** format in the box titled **Save as type**.
- 5 Click the **OK** button. A wizard opens to walk you through the next few steps.
- 6 If you have used the Database Update format previously and have a saved configuration file that applies to this data set, click the **Load...** button to locate the configuration file. Otherwise, go on to step 7.

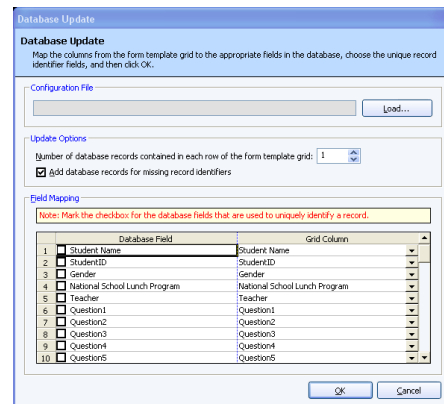
**Note:** You are prompted to save a configuration file with your settings after saving the data.

- 7 In the **Update Options** area, select the number of records contained in each row of the data set (e.g., if multiple respondents' answers are on a single form, you would have more than one record per data row). If each record in the data set corresponds to one respondent's submission, use 1 for the value.

- 8 In the **Update Options** area, mark the **Add database records for missing record identifiers** checkbox if you would like to create new records in the database when an identifier is not found.
- 9 In the **Region Mapping** area, map the regions from Remark Classic OMR to the regions in the external database. The target database regions are listed in the first column, called **Database Region**, and the Remark Classic OMR regions (questions) are listed in the second column, called **Grid Column**. Use the down arrow in the **Grid Column** section to choose the appropriate region to map to the corresponding database region.

**Note:** Remark Classic OMR attempts to automatically map the regions based on the region/region names. Review the region mapping first and then make changes if necessary.

- 10 Choose a region or regions to use as an identifier by marking the appropriate checkbox next to the region name. The identifier regions are used to match data from Remark Classic OMR to the external database. If a match is not found, the data is not added to the database (unless you selected this feature in step 8) and you receive a message. You may select more than one region to use as the identifier, in which case the data from all identifier regions must be a match for the record to be updated in the external database.



- 11 Click the **OK** button to save the data.
- 12 If any problems are encountered when updating the selected file, a message appears detailing the problems. If the database is updated successfully you receive a message telling you how many records were updated and asking you if you want to save the configuration file for later use. If you do wish to save the file, click the **Yes** button. Enter a file name and choose a location for the .ini file in the **Save** window that appears.

**Note:** The ODBC Database Update format works just as described previously, but you can save to a database using an ODBC connection.

### 7.6.4 Save All Data

The Save All Data feature allows you to save multiple open data sets to one combined file. This feature is useful if you need to store and analyze data both on an aggregate and individual level. By maintaining separate files you can easily report on an individual data set. However, by combining the individual data files into one, you can also report on the data as a whole without having to open each data set individually any time you want to analyze all the data.

#### To use Save All Data

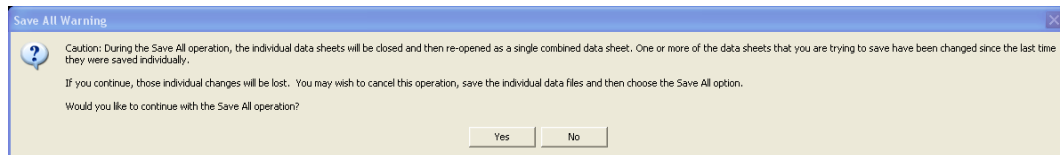
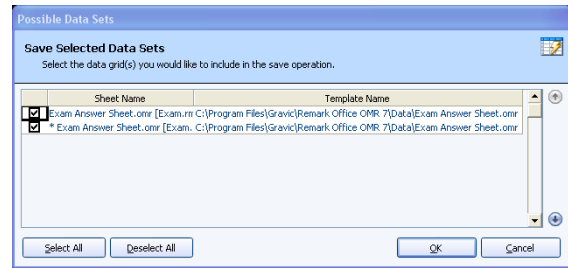
- 1 Select the **File** menu and then click **Save All Data**.

The **Possible Data Sets** window opens, allowing you to choose the open files you wish to include in the save operation.

- 2 Mark the checkboxes of all data sets you wish to include in the save operation. You may use **Select All** to select all data sets in the list. Please note that the data set

must correspond to the active form template in order for it to be included in the save operation.

- 3 If needed, use the up and down arrow buttons to move data sets. The order in which the files appear on the **Possible Data Sets** window is the order in which they are saved.
- 4 If any of the open data sets had changes made to them prior to the save operation and were not saved, you receive a warning. The warning lets you know that during the save operation, all of the data sets being combined are closed. Click **Yes** to continue or **No** to cancel the operation, allowing you to go back and save the individual files first.



**Note:** If you made changes to your original data files and want those changes to be saved, save the individual files before using Save All Data. If you choose to ignore the warning, the changes to the individual data sets are not saved.

- 5 Click the **OK** button.
- 6 Select the desired directory location using the **Look in** drop down box.
- 7 Enter a name in the box titled **File name**.
- 8 Select the desired file format in the box titled **Save as type**.
- 9 Click the **OK** button to save the file.

All selected data sets are saved to the file specified and closed in the data grid. The combined data set is opened.

### 7.6.5 Save Data Builder

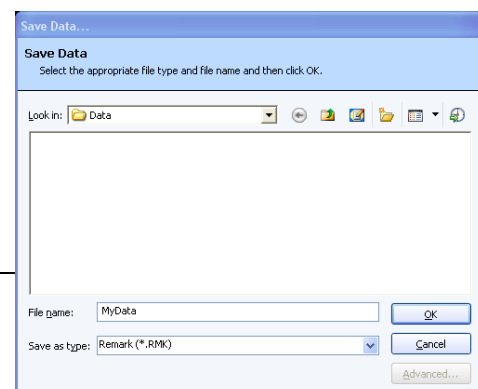
The Save Data Builder option allows you to fine tune the data saving process by building dynamic file, folder and table names. Using the Data Builder options, you can use information directly from your data set to name the data file, storage folder or table within the file.

#### To use Save Data Builder

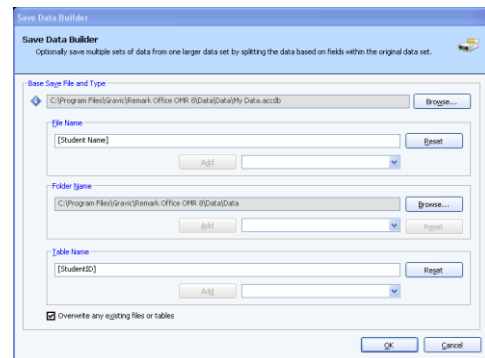
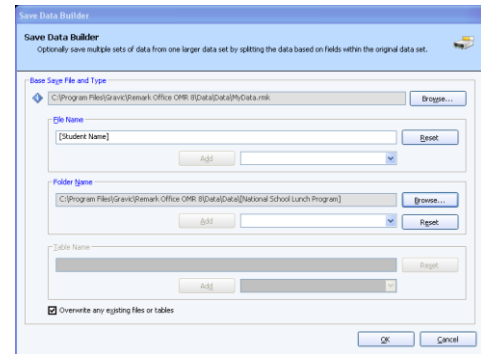
- 1 Select the **File** menu and then click **Save Data Builder**.

The **Save Data Builder** window opens, allowing you to choose a file name, a file type, the folder in which you would like the file saved and table name saving options. The first step is to choose a file type and location for the data.

- 2 Under **Base Save File and Type**, click the **Browse...** button to select a file name and format for your data.



- 3 Select the desired folder location using the **Look in** drop down box.
- 4 Enter a file name in the **File name** box. If choosing a database format, also enter a **Table Name**.
- 5 Choose the file format in the **Save as type** box.
- 6 Click the **OK** button.
- 7 Next, go to the **File Name** area of the window. The name you set in the previous screen is listed as the file name. You may modify it by typing in the box. You may also use the drop-down list to add a region from the processed data to the file base name. Choose the region from the drop-down list and then click the **Add** button. For example, if processing student test forms, you could add a student name region that is being collected from the form so that your data file name includes the name of each student (each time the student name changes, a new data file is created).
- 8 In the **Folder Name** area, you may choose to add a region from the processed data to the folder structure that holds the data file. Choose the region from the drop-down list and then click the **Add** button. Continuing with our example, if processing student test forms, you could add a teacher name or ID region that is being collected from the form so that your folder names include teacher identifiers. Each student's data from the data set would be stored in a separate folder based on teacher name or ID number.
- 9 If using a database format that requires a table name, go to the **Table Name** area of the window. The name you chose for Table Name when initially setting up the file in Step 4 is listed as the Table Name. You may modify it by typing in the box. You may also use the drop-down list to add a region from the processed data to the file base name. Choose the region from the drop-down list and then click the **Add** button. Continuing with our example, if processing student test forms, you could add a student name region that is being collected from the form so that your data file table name includes the name of the students.
- 10 Click the **OK** button to save the data.




The data file(s) is saved based on your specifications. If you named files or folders based on data from your data set, you may see separate folders and files. For folders, there is a separate folder for each unique entry in your data set. Within each folder you find the appropriate data file. For data files, the data file names begin with the region data you chose during the set up process.

## 7.7 Printing Data

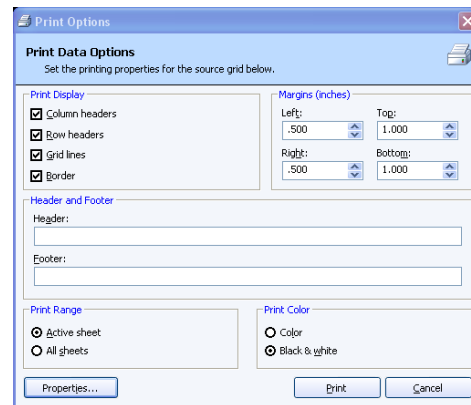
The Remark Classic OMR Data Center allows you to print grid data on any Windows-supported printer.

### To print the grid data

- 1 From the **Remark Classic OMR Data Center**, select the **File** menu and then click

**Print**, or click  to display the **Print Options** window.

- 2 Click the **Properties...** button to choose and configure a specific printer. Otherwise, the default printer is used.
- 3 In the **Print Display** section, mark the checkboxes corresponding to the items you wish to print: **Column headers**, **Row headers**, **Grid lines**, **Border**.
- 4 In the **Margins** section, choose the print margins in inches. The default settings are **1** inch margins on the top and bottom, and **1/2** inch margins on the left and right.
- 5 In the **Header** and **Footer** area, optionally enter text to be displayed in the header and footer of the page.
- 6 In the **Print Range** area, select a page range to print: **Active sheet** (currently selected form template) or **All sheets** (all open form templates).
- 7 In the **Print Color** area, select whether to print the page in **Color** or **Black & white** (the color setting only applies if the selected printer is color-enabled).
- 8 Click the **Print** button to print the grid.



## 7.8 Emailing Data

### 7.8.1 Email Overview and Set Up

You can email data files in their native formats or in ZIP format from the Remark Classic OMR Data Center. You have a choice of using Microsoft Outlook 2007 or 2010 or your own SMTP server to send the emails. We cover both methods here.

**Note:** When emailing data, a local copy of the data is not saved. If you need to save a data file, make sure you take that step in addition to using the email function. Saving data is covered in Section 7.6.

#### Your SMTP Server:

If you use your own SMTP server, you must have a valid SMTP server set up independently of Remark Classic OMR. SMTP stands for Simple Mail Transfer Protocol and is the Internet standard for transmitting email across networks. It is likely your organization has a running SMTP server already set up. You just need to find out general information about the server. You will likely need to consult with your network/email administrator to obtain information about your SMTP server. Please use the following table as a guide to have your administrator provide the proper settings:

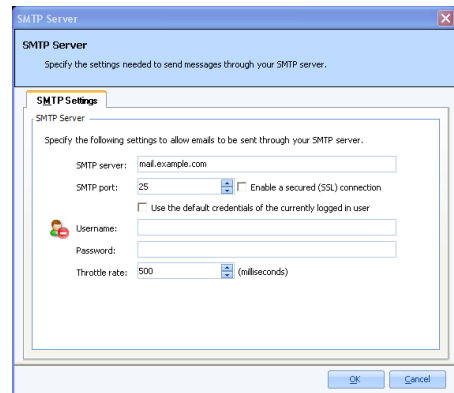
Option	Description
SMTP Server	This is the name, address or IP address of the mail server.
SMTP port	The SMTP port is usually 25 but may vary with your email server.
Enable a secured (SSL) connection	If desired, use a secure connection by marking the checkbox for <b>Enable a secured (SSL) connection</b> . SSL encrypts data as it is transmitted. Your SMTP server must be configured to use SSL in order for this feature to work.
Use the default credentials of the currently logged in user	If you need to use authentication for your SMTP server, you can enter credentials or use those of the user logged in to the computer. Mark the <b>Use the default credentials of the currently logged in user</b> checkbox to utilize the user's credentials (e.g., the person logged in when sending the emails from Remark Classic OMR). Otherwise, continue to the next step to enter specific credentials.
Username and Password	If authentication is required, and you are not using the credentials of the currently logged in user, enter the <b>Username</b> and <b>Password</b> , as supplied by your network/email administrator.
Throttle rate	The throttle rate adds a delay while sending emails. The default setting is 500ms, meaning that one email is sent every 500 ms (in other words, two emails are sent per second). Throttling emails keeps the SMTP server from being overloaded when sending large numbers of emails. Unless you plan on sending hundreds of emails at one time, the default setting of 500 is likely fine.

**Microsoft Outlook:**

If you plan to use Microsoft Outlook 2007 or 2010, you do not need to set up anything outside of telling the software to use Outlook.

**To choose Microsoft Outlook or your own SMTP server in Remark Classic OMR:**

- 1 From the **Remark Classic OMR Data Center**, select the **Tools** menu and then click **Preferences**.
- 2 Click the **Email** link in the left Task Pane.
- 3 Under **Email client**, choose **Default** to use your own SMTP server. Choose **Outlook** to use Microsoft Outlook 2007 or 2010. If you are using Outlook, simply click **OK**. If you are using the Default email client, continue to the next step.
- 4 If you have chosen the **Default** client, click the **SMTP Server** button.
- 5 Fill in the settings as described in the previous table. You will need your network/email administrator to provide this information to you.
- 6 Click the **OK** button.





## 7.8.2 Using Email to Send Data Files

Once you have set up your email preferences in Tools|Preferences (see previous section), you are ready to start emailing data files.

### To email data files using Microsoft Outlook

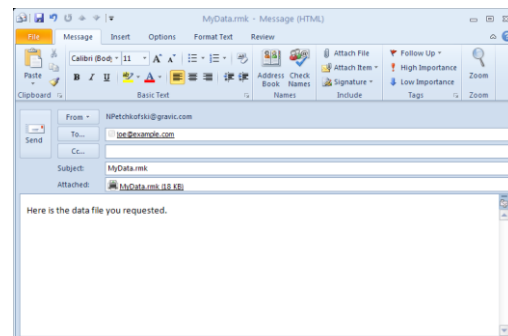
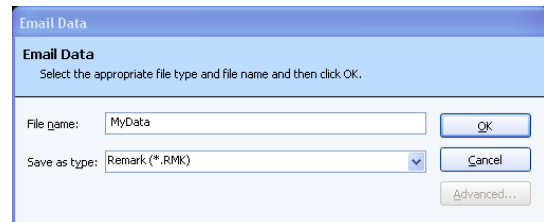
- 1 After processing forms, saving data or opening a data file, select the **File** menu and click **Email**. Note: If you choose the toolbar option or Task Pane option to send email, the file is always in zipped format.
- 2 Choose **Data as Attachment** to attach the native file to an outgoing email message. Choose **Data as ZIP Attachment** to first zip the native data file (compress it into a .zip file) and then attach it to an outgoing email.

**Note:** Your organization, or the recipient's organization, may have restrictions on the types of files that can be sent via email. If the file is restricted and you do not zip it, the email may never reach the intended recipient. If you are unsure whether the selected file type is restricted, use the ZIP option. The recipient must have a Zip program to unzip the file and view it.

The **Email Data** window appears.

- 3 Choose the **File name**, file format using **Save as type** and if using a database format, the **Table** or **Sheet name**. You do not need to specify a location for the file, as it is automatically attached to an email message.
- 4 Click the **OK** button.

Outlook automatically opens a new email message with your file attached. You may now enter recipients and a message and send your file. Note if you chose to zip the file, it appears with a .zip extension.



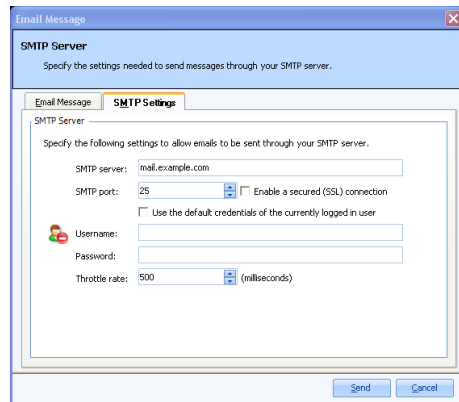
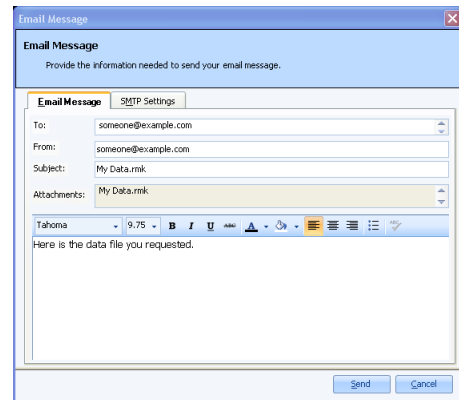
### To email data files using your SMTP server

- 1 After processing forms, saving data or opening a data file, select the **File** menu and click **Email**. Note: If you choose the toolbar option or Task Pane option to send email, the file is always in zipped format.
- 2 Choose **Data as Attachment** to attach the native file to an outgoing email message. Choose **Data as ZIP Attachment** to first zip the native data file (compress it into a .zip file) and then attach it to an outgoing email.

**Note:** Your organization, or the recipient's organization, may have restrictions on the types of files that can be sent via email. If the file is restricted and you do not zip it, the email may never reach the intended recipient. If you are unsure whether the selected file type is restricted, use the ZIP option. The recipient must have a Zip program to unzip the file and view it.

The **Email Data** window appears.

- 3 Choose the **File name**, file format using **Save as type** and if using a database format, the **Table** or **Sheet name**. You do not need to specify a location for the file, as it is automatically attached to an email message.
- 4 Click the **OK** button.
- 5 The **Email Message** window appears.
- 6 Enter the recipient(s)' email address in the **To** box. Separate multiple recipients with a semi colon (;).
- 7 Enter your return email address in the **From** box.
- 8 Accept the default subject, which is the file name, or enter a new one in the **Subject** box.
- 9 In the rich text box, type your message to the recipient(s). You may use the toolbar to format your message as desired.
- 10 If you have already configured your SMTP settings in Remark Classic OMR, as described in section 6.8.1, you do not need to click the **SMTP Settings** tab. However, if you have not entered your SMTP settings or need to modify them, click the **SMTP Settings** tab to enter the SMTP server information. You will need to obtain this information from your network/email administrator.
- 11 Click **Send** when you are ready to send your message.



Your email message is automatically sent. If delivery problems occur, they are routed to the address listed in the **From** box of the email message (this may depend on how your SMTP server is configured to handle message failures).

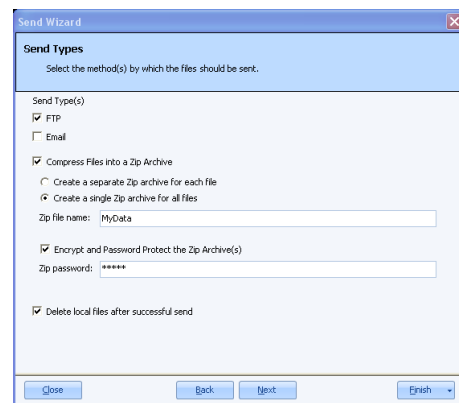
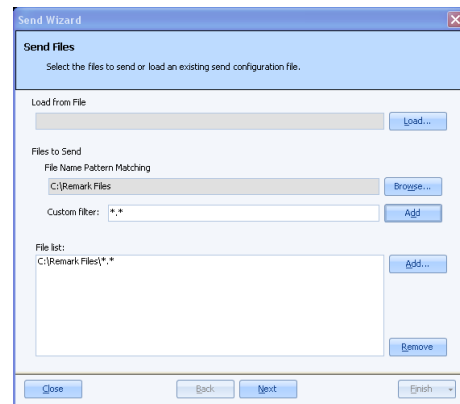
## 7.9 Send Wizard

The Remark Classic OMR Send Wizard allows you to send files via FTP (file transfer protocol) or email. As opposed to the Email option in Remark Classic OMR, the Send Wizard provides more advanced tools for creating profiles so that data and reports can be automatically sent to other destinations. Send Wizard configurations can be utilized from the Automation Wizard when automating Remark Classic OMR functions. Send Wizard configuration files can be set up ahead of time to look for files in directories and then either send them to an FTP site or email them. For example, you could set up an Automation Wizard file that does the following: Opens a form template, scans forms, saves the data to a file, grades the data and then launches a Send Wizard file to move the grades to an FTP server or send a report via email. If you wish to use email with the Send Wizard you must have an SMTP (simple mail transfer protocol) server set up independently of Remark Classic OMR. You will need to obtain the settings from your network/email administrator for that SMTP server and enter them into the Remark software. When setting up the Send Wizard profile, you can send files via FTP and/or email. For the purposes of this documentation, we will break out the steps for each, but please note you can do both operations at the same time.

**Tip:** If you are not familiar with the Automation Wizard, which is used to automate basic Remark Classic OMR functions, please read the Remark Classic OMR 4 Automation Wizard User's Guide.pdf file, located in your Remark Classic OMR installation directory (Start|Programs|Remark Classic OMR 4|Documentation).

### To use the Send Wizard to send files via FTP

- 1 Select the **Tools** menu and click **Send Wizard**.
- 2 If you have already saved a **Send Wizard** configuration file, click the **Load...** button to retrieve it. Otherwise, continue to step 3 to begin a new **Send Wizard** configuration.
- 3 Under **File Name Pattern Matching**, using the **Browse...** button, chose a location on your computer or network for the software to search when looking for files to send.
- 4 Under **Custom Filter**, choose the extension of the file to send. For example, if you are sending Excel 2010 files to an FTP site, you would enter ".xlsx." If you want all files found in the specified directory to be included in the send operation, enter "\*.\*".
- 5 Click the first **Add** button to move your selections into the configuration window.
- 6 [Optional] If you have additional files not generated by Remark Classic OMR or very specific files that you want to include, click the **Add** button next to the **File list** window.
- 7 [Optional] In the **Open** window, select the files you wish to include.
- 8 Once you have all the files you wish to include visible in the **File list** window, click the **Next** button.
- 9 Under **Send type**, choose **FTP** to send the files to an FTP site.
- 10 [Optional] If you would like to compress the files first, mark the checkbox for **Compress Files into a Zip Archive**.
- 11 [Optional] If using compression, choose whether you want each file in its own zip file (**Create a separate zip archive for each file**) or to combine all files into one zip file (**Create a single zip archive for all files**).
- 12 [Optional] If creating a single zip file, enter a name for the file in the **Zip file name** box. (Note: when archiving each file individually, the zip file is automatically named with the file name.)
- 13 [Optional] If you would like the contents of the zip file to be encrypted and password protected, mark the checkbox **for Encrypt and Password Protect the Zip Archive(s)**.
- 14 [Optional] Enter the password required to open the zip file in the **Zip password** box.



- 15** [Optional] If you would like to delete the original files stored locally once the files are sent via the Send Wizard, mark the checkbox **for Delete local files after successful send**. If a problem is encountered sending the files, the original files are not deleted.
- 16** Click the **Next** button to continue.
- 17** On the **FTP Server** settings window, tell Remark Classic OMR about your FTP server. If you have run the Send Wizard previously and set up an FTP site, you can select it from the **FTP sites** drop-down list. If you do not have any sites listed, set one up by continuing with the following steps. The following options are available when setting up an FTP server.

**Basic Tab:**

<b>Option</b>	<b>Description</b>
<b>Server Address</b>	This is the internet address of the FTP server. If you enter a DNS name for the server (e.g. ftp://myftpsite.com ), then the prefix <b>ftp://</b> is required. If you enter an IP address (e.g., ftp://12.34.56.78), then the prefix <b>ftp://</b> is optional (e.g., just enter 12.34.56.78).
<b>Target Directory</b>	You can, optionally, specify a target directory on the FTP server. The target directory holds the file once it is transferred to the server. <b>Note:</b> No verification is performed to check that the directory path you enter is valid on the server. To verify connectivity to the server, use <b>Test Connectivity</b> on the <b>FTP - Basic</b> screen.
<b>Username</b>	This is the username that is required for FTP login on the FTP server. The person responsible for your FTP server should be able to provide this information to you.
<b>Password</b>	This is the password that is required for FTP login on the FTP server. The person responsible for your FTP server should be able to provide this information to you.
<b>Transfer Type</b>	Select either <b>Binary</b> or <b>ASCII</b> . As a guideline, use ASCII only for plain-text files and Binary for all other types. The default value is Binary.
<b>File Exists Action</b>	Select an action to perform if the uploaded file already exists on the FTP server. You can choose to overwrite the existing file or choose not to upload the file at all.

**Advanced Tab:**

Option	Description
<b>Restrict upload file size</b>	You can choose to restrict the size of files are uploaded by the FTP service. Any files that are placed in the Source Directory (defined under the Basic tab) that exceed this value in size is not uploaded to the FTP server.
<b>File Lock Timeout</b>	<p>When a file is copied (or moved) to the Source Directory (defined under the Basic tab), the actual copy (or move) operation takes time to perform on any operating system. For very large files, this time period can be several seconds, or even minutes. While this takes place, the file cannot be uploaded with FTP, since the file is "incomplete" (in this folder) until the copy (or move) operation has finished. The FTP Service attempts to gain exclusive use ("locked" use) of the file before uploading it. In this way, the software can determine that a copy (or move) operation has finished, and therefore, that the file is complete and ready for upload.</p> <p>Use this File Lock Timeout setting to control the time period for which the FTP Service attempts to lock the file before giving up and recording an upload failure.</p>

**18** Enter the details for your FTP server as described in the previous table.

**19** Use the **Test Connectivity** button to ensure you can connect to the FTP server using the supplied information.

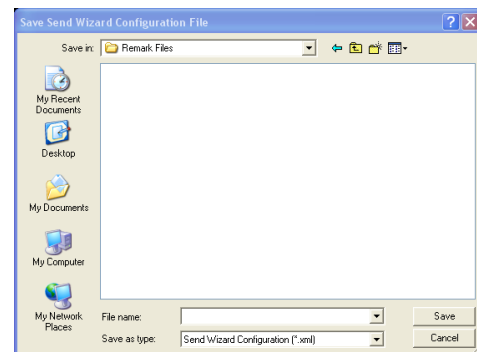
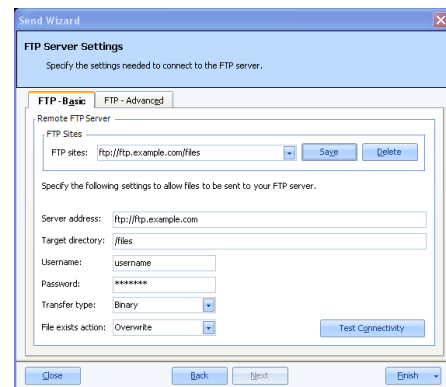
**20** [Optional] If you would like to save your FTP server information, click the **Save** button. The FTP Server name is automatically used to name your settings.

**21** Click the **Finish** button to complete the setup. Optionally, you may click the arrow on the **Finish** button and choose to **Save** your configuration without executing it, **Execute** the configuration without saving it (e.g., to test it) or **Save and Execute** to both save and execute the configuration in one step.

**22** When clicking **Finish**, you are prompted to save your Send Wizard Configuration file. It is recommended that you save the file so you may use it again in the future or call it up from the Automation Wizard. The file can be saved anywhere on your computer or network and has an XML file extension.

**23** To save the Send Wizard Configuration File, click the **Yes** button, choose a location and provide a file name. Ensure that you remember where the files are stored so that you can locate them later.

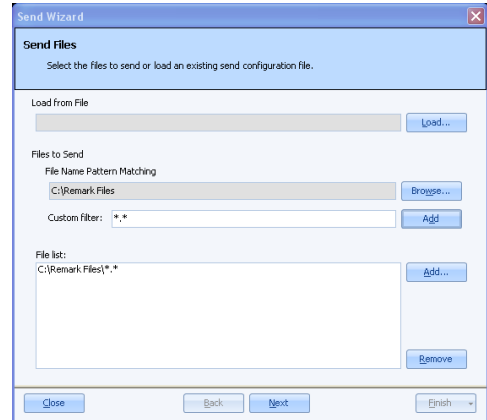
**24** If you do not wish to save the Send Wizard Configuration File, click the **No** button. The configuration executes.



Once the wizard closes, the action is active. Remark Classic OMR looks in the directory(ies) specified for files to send to your FTP site. If any problems occur, you are notified. Otherwise, the requested action is executed and a notice appears letting you know the operation was successful.

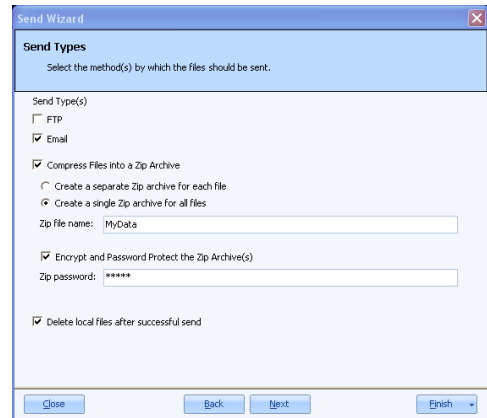
**To use the Send Wizard to send files via email**

- 1 Select the **Tools** menu and click **Send Wizard**.
- 2 Under **File Name Pattern Matching**, chose a location on your computer or network for the software to search when looking for files to send.
- 3 Under **Custom Filter**, choose the extension of the file to send. For example, if you are sending Excel 2010 files to an FTP site, you would enter ".xlsx." If you want all files found in the specified directory to be included in the send operation, enter "\*.\*."
- 4 Click the first **Add** button to move your selections into the configuration window.
- 5 [Optional] If you have additional files not generated by Remark Classic OMR or very specific files that you want to include, click the **Add** button next to the **File list** window.
- 6 [Optional] In the **Open** window, select the files you wish to include.
- 7 Once you have all the files you wish to include visible in the **File list** window, click the **Next** button.
- 8 Under **Send type**, choose **Email** to send the files via email.
- 9 [Optional] If you would like to compress the files first, mark the checkbox for **Compress Files into a Zip Archive**.



**Note:** Your organization, or the recipient's organization, may have restrictions on the types of files that can be sent via email. If the file is restricted and you do not zip it, the email may never reach the intended recipient. If you are unsure whether the selected file type is restricted, use the ZIP option. The recipient must have a Zip program to unzip the file and view it.

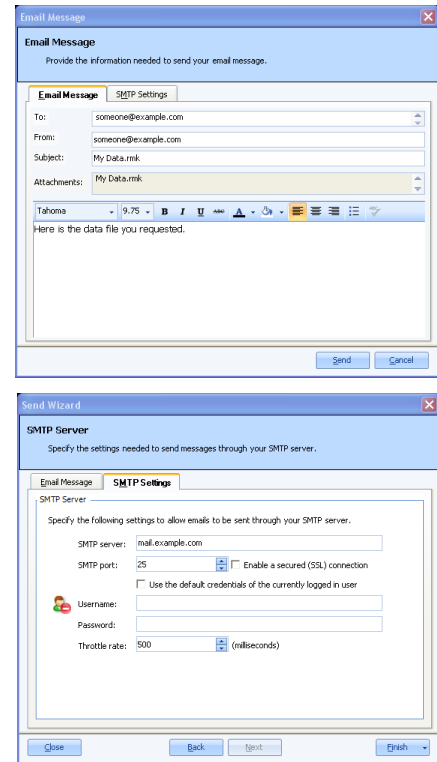
- 10 [Optional] If using compression, choose whether you want each file in its own zip file (**Create a separate zip archive for each file**) or to combine all files into one zip file (**Create a single zip archive for all files**).
- 11 [Optional] If creating a single zip file, enter a name for the file in the **Zip file name** box. (Note: when archiving each file individually, the zip file is automatically named with the file name.)
- 12 [Optional] If you would like the contents of the zip file to be encrypted and password protected, mark the checkbox for **Encrypt and Password Protect the Zip Archive(s)**.
- 13 [Optional] Enter the password required to open the zip file in the **Zip password** box.



- 14** [Optional] If you would like to delete the original files stored locally once the files are sent via the Send Wizard, mark the checkbox **for Delete local files after successful send**. If a problem is encountered sending the files, the original files are not deleted.

In the **Email Message** window, format your email.

- 15** Enter a recipient(s) address in the **To** box (separate multiple recipients with a semi colon (;)).
- 16** Enter the sender's email address in the **From** box.
- 17** Enter a subject of your choice in the **Subject** box.
- 18** Compose your message. You may use the toolbar buttons to add formatting to your message.
- 19** Click the **SMTP Settings** tab to enter information about your SMTP Server. You must have a valid SMTP server set up independently of Remark Classic OMR. SMTP stands for Simple Mail Transfer Protocol and is the Internet standard for transmitting email across networks. It is likely your organization has a running SMTP server already set up. You just need to find out general information about the server. You will likely need to consult with your network/email administrator to obtain information about your SMTP server. Please use the following table as a guide to have your administrator provide the proper settings:

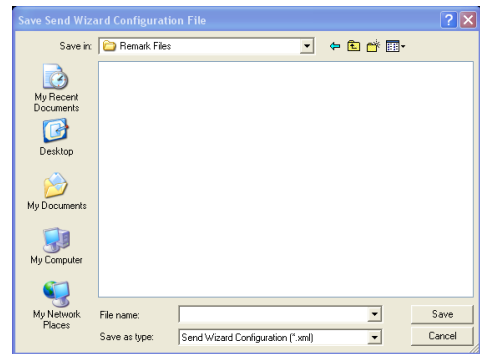


Option	Description
SMTP Server	This is the name, address or IP address of the mail server.
SMTP port	The SMTP port is usually 25 but may vary with your email server.
Enable a secured (SSL) connection	If desired, use a secure connection by marking the checkbox for <b>Enable a secured (SSL) connection</b> . SSL encrypts data as it is transmitted. Your SMTP server must be configured to use SSL in order for this feature to work.
Use the default credentials of the currently logged in user	If you need to use authentication for your SMTP server, you can enter credentials or use those of the user logged into the computer. Mark the <b>Use the default credentials of the currently logged in user</b> checkbox to utilize the user's credentials (e.g., the person logged in when sending the emails from Remark Classic OMR). Otherwise, continue to the next step to enter specific credentials.
Username and Password	If authentication is required, and you are not using the credentials of the currently logged in user, enter the <b>Username</b> and <b>Password</b> , as supplied by your network/email administrator.



Option	Description
Throttle rate	The throttle rate adds a delay while sending emails. The default setting is 500ms, meaning that one email is sent every 500 ms (in other words, two emails are sent per second). Throttling emails keeps the SMTP server from being overloaded when sending large numbers of emails. Unless you plan on sending hundreds of emails at one time, the default setting of 500 is likely fine.

- 20 Enter the settings as described in the previous table.
- 21 Click the **Finish** button to complete the setup. Optionally, you may click the arrow on the **Finish** button and choose to **Save** your configuration without executing it, **Execute** the configuration without saving it (e.g., to test it) or **Save and Execute** to both save and execute the configuration in one step.
- 22 When clicking **Finish**, you are prompted to save your Send Wizard Configuration file. It is recommended that you save the file so you may use it again in the future or call it up from the Automation Wizard. The file can be saved anywhere on your computer or network and has an XML file extension.
- 23 To save the Send Wizard Configuration File, click the **Yes** button, choose a location and provide a file name. Ensure that you remember where the files are stored so that you can locate them later.
- 24 If you do not wish to save the Send Wizard Configuration File, click the **No** Once the wizard closes, the action is active.



Remark Classic OMR looks in the directory(ies) specified for files and sends them to your designated recipients. If any problems occur, you are notified. Otherwise, the requested action is executed.

## 7.10 Opening Data

The Remark Classic OMR Data Center can open data saved in dozens of different file formats. We specifically designed the Remark file format to optimize the data storage process in the Remark Classic OMR software. The software is designed to work with data that is collected using a form template in Remark Classic OMR. Therefore, you must first open a form template and then open the corresponding data file. Once the data file is opened, you can save it to another format or location, or use Remark Quick Stats to analyze it.

**Tip:** When working with data in Remark Classic OMR, use the Remark file format (RMK). This format saves exception case colors and links to scanned images\* (\*OMR/Image scanners only). Only save data to other formats when exporting.


The following table lists the different file formats the Data Center can open, their extensions and a brief description:



<b>File Format</b>	<b>Extension</b>	<b>Description</b>
Remark	RMK	Remark Classic OMR format; includes grid exception colors and scanned image links* (*OMR/Image scanners only)
Web Survey	RWD	Remark Web Survey format
SQL Server 2000-2005	MDF	Microsoft SQL Server format
Oracle 7.4 & later	*.*	Oracle format
Access 2007-2010	ACCDB	Microsoft Access 2007/2010 format (only available if the Access 2007 or 2010 database engine is installed)
Access 2000-2003	MDB	Microsoft Access 2000-2003 format
Access 95-97	MDB	Microsoft Access 95-97 format
Access 2.0	MDB	Microsoft Access 2.0 format
Access 1.0	MDB	Microsoft Access 1.0 format
Excel 2007-2010	XLSX	Microsoft Excel 2007/2010 format (only available if the Access 2007 or 2010 database engine is installed)
Excel 97-2003	XLS	Microsoft Excel 97-2003 format
Excel 95	XLS	Microsoft Excel 95 format
Excel 4.0	XLS	Microsoft Excel 4.0 format
Excel 3.0	XLS	Microsoft Excel 3.0 format
SPSS	SAV	SPSS 16 format
SPSS Legacy	SAV	SPSS 6 format
Survey Pro	SRV	Survey Pro standard format (Apian Software)
ASCII [commas]	ASC	Comma delimited ASCII
ASCII [tabs]	ASC	Tab delimited ASCII
Spreadsheet [commas]	TXT	Comma delimited ASCII with quotes around non-numeric data
Spreadsheet [tabs]	TXT	Tab delimited ASCII with quotes around non-numeric data
dBase 5.0	DBF	dBase 5.0 format
dBase IV	DBF	dBase IV format
dBase III	DBF	dBase III format
Paradox 5.X	DB	Paradox 5.X format
Paradox 4.X	DB	Paradox 4.X format
Paradox 3.X	DB	Paradox 3.X format
Lotus WK4	WK4	Lotus Works 4 format (open only)

File Format	Extension	Description
Lotus WK3	WK3	Lotus Works 3 format
Lotus WK1	WK1	Lotus Works 1 format
Lotus 1-2-3	WKS	Lotus 1-2-3 format
LXR Test	MRG	LXR Test format
Report	RPT	Fixed format ASCII, cell text padded or truncated to specified record length
Data Interchange Format	DIF	Standard format using file header and data section
CCI Assessment	DAT	CCI Assessment format
XML	XML	Extensible Markup Language format
HTML	HTM	Hypertext Markup Language
ODBC	*.*	Open Database Connectivity
Custom	ASC, TXT	Custom Text format

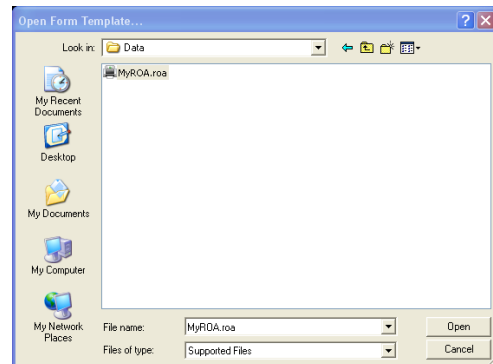
### To open grid data

- 1 Open the correct form template.
- 2 Select the **File** menu and then click **Open Data**, or click  , to display the **Open Data** window. Alternatively, use the **Open data file** link from the Task Pane.
- 3 Select a file from the list. Use the **Look in** box to locate saved data files. You may need to adjust the **Files of type** list to find the desired file.

**Note:** The data contained in the file must correspond to the currently active form template or an error may occur.

- 4 If opening a database file, select the appropriate table from the **Table name** drop-down list.
- 5 Click the **OK** button to open the data file.

**Caution:** When opening a database file type, the Data Center attempts to match grid column headers (region names) to the database's field names. If any column headers cannot be matched, an error occurs. Grid column headers do not need to appear in the same order as the database fields.



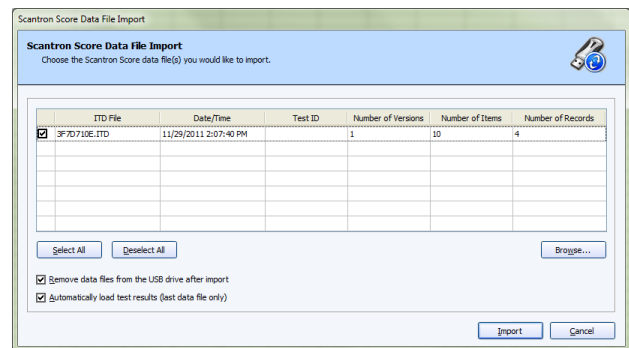
## 7.11 Opening Scantron Score Data Files

Remark Classic OMR imports data files generated from the Scantron Score Test Scoring Machine. This scanner scans tests and produces results on a USB drive. You may pull the data off of the USB drive so that it can be analyzed in Remark Quick Stats.

**Note:** Using the Scantron Score Test Scoring Machine is not covered in this user's guide, as it is not part of the Remark Classic OMR software. Please see your Scantron Score user's guide for information about using the test scoring machine.

### To import Scantron Score data

- 1 Place the USB drive containing the test data from the Scantron Score Test Scoring Machine in the computer's USB drive.
- 2 In Remark Classic OMR, select the **File** menu and then click **Import Scantron Score Data**. Alternatively, select the **Import Scantron Score data** option from the Task Pane. The **Scantron Score Data File Import** window appears.
- 3 If a USB drive containing data from the Scantron Score is in the drive and recognized, Remark Classic OMR automatically lists any files it finds. Alternatively, you may click the **Browse...** button to locate your Scantron Score data files if they are not on a USB drive. Scantron Score data files have a .ITD extension.
- 4 If multiple files are found/selected, you can choose which ones to include in the operation by checking their boxes or using the **Select All** and **Deselect All** buttons (by default, all files are selected).
- 5 Optionally, mark the checkbox for **Remove data files from the USB drive after import** if you wish to delete the data files from the USB drive once they are imported. The original .ITD file(s) will no longer exist and are not recoverable. The data will reside in the Remark Classic OMR grid, where you can save it to any supported format. Note that this option applies only to files located on a USB drive, not files from the computer's file system.
- 6 Optionally, mark the checkbox for **Automatically load tests results (last data file only)** if you wish to have Remark Classic OMR perform an Easy Grade operation on the open data. This operation only includes the last data file in the list. If you wish to include all data files, do not use this option. Instead once the data is loaded into the grid, use the Grade Wizard option in Remark Quick Stats.
- 7 Click the **Import** button to import the data.



If you selected to automatically load rest results, the data loads and Remark Quick Stats launches, performing an Easy Grade operation. If you did not select to automatically load test results, the data is loaded and you may now save the data (File|Save Data As) or perform grading operations.

## 7.12 Data Center Logging

As changes are made in the Remark Classic OMR Data Center, they can optionally be logged, allowing you to see what changes were made and who made them. Logging is turned on and off in the Remark Classic OMR Preferences. It can only be turned off if you know the password used when turning on the feature. Changes made to the data grid (edits, review exceptions, review duplicates, clipboard, open, save, etc.) are logged in a password protected Access database in the following location:

Windows XP: C:\Documents and Settings\All Users\Application Data\Gravic\Remark Classic OMR\4\Change Logs (where C is the drive on which Remark Classic OMR is installed).

Windows Vista/Windows 7: C:\ProgramData\Gravic\Remark Classic OMR\4\change log (Note you must have the option to show hidden folders and files on to see this location).

When the database is initially created, it uses the date of creation as the filename. From that point forward, all changes to all templates/data files are stored in that Access file as long as the feature is turned on. Data file types, exception flags and actions are all listed with a numeric equivalent in the database. The additional tables in the database explain each of the numeric values. When a database reaches 10MB in size, a new database is created the next time Remark Classic OMR is opened.

Four tables are created in the Access file:

### History Table:

- ID: Numeric index for each action.
- Template File: The name of the form template that corresponds to the data file that was changed.
- Log Action: The action taken such as opening data, reviewing exceptions, etc.
- Data File: The name of the data file that was changed.
- Table Name: The name of the table, if applicable, that was changed
- File Type: The file type of the file that was changed. Note that this is a numeric value that corresponds to the items in the Save as type drop-down list in the Save Data window. For example, the Remark (RMK) format is the second item in the list, so it is listed as 2. (See File Types Table below for a complete listing.)
- Column Number: The column in the data that was changed.
- Row Number: The row in the data that was changed.
- Respondent ID: The respondent ID, if applicable, that was changed.
- Question Name: The question name (region name) of the applicable question that was changed.
- Question Text: The question text, if applicable, of the corresponding question that was changed.
- Original Value: The original value stored prior to making any changes.
- Original Flag: If an exception flag existed originally (e.g., BLANK) it is listed. Note that this is a numeric value that corresponds to the items in the Exceptions Legend in the Data Center. For example, a MULT is the first item in the list, so it is listed as 1. (See Flag Types Table below for a complete listing.)
- New Value: The text that was entered during the change process.
- New Flag: If a new exception flag was applied, it is listed. (See Flag Types Table below for a complete listing.)

- System Name: The name of the system where Remark Classic OMR was running during the change process.
- Windows User: The Windows name of the logged in user who made the changes.
- Change Date: The date and time the changes were made.

**Actions Table:** The Actions Table displays the list of possible actions that are logged.

0-	Modify	4-	Sort
1-	Insert	5-	Open
2-	Delete	6-	Save
3-	Clear	7-	Read

**File Types Table:** The File Types Table displays the list of data file types that are displayed in the Actions table when data is saved or opened.

2-	Remark (*.RMK)	34-	ODBC (*.*)
3-	ASCII [Commas] (*.ASC)	35-	Custom (*.ASC,*.TXT)
4-	ASCII [Tabs] (*.ASC)	36-	Survey Pro STL (*.STL,*.ST3)
5-	CCI Assessment (*.DAT)	37-	HTML (*.HTM, *.HTML)
6-	DIF Files (*.DIF)	38-	Lotus WK4 (*.WK4, *.WKS)
8-	LXR Test (*.MRG)	36-	Survey Pro STL (*.STL,*.ST3)
9-	Report (*.RPT)	39-	Lotus WK3 (*.WK3)
10-	Spreadsheet [Commas] (*.TXT)	40-	Lotus WK1 (*.WK1)
11-	Spreadsheet [Tabs] (*.TXT)	41-	XML (*.XML)
12-	SPSS Legacy (*.SAV)	44-	Questionmark (*.QSF)
13-	Survey Pro SRV (*.SRV)	45-	Database Update (*.ACCDB,*.MDB, *.XLSX,*.XLS)
14-	Survey System (*.DAT)	46-	ODBC Database Update (*.*)
15-	Access 2000 - 2003 (*.MDB)	47-	Access 2007 - 2010 (*.ACCDB)
16-	Access 95, 97 (*.MDB)	48-	Excel 2007 - 2010 (*.XLSX)
20-	dBase V (*.DBF)	49-	Paradox 7 - 8 (*.DB)
21-	dBase IV (*.DBF)	52-	SQL Server
23-	Excel 97 - 2003 (*.XLS)	53-	Oracle

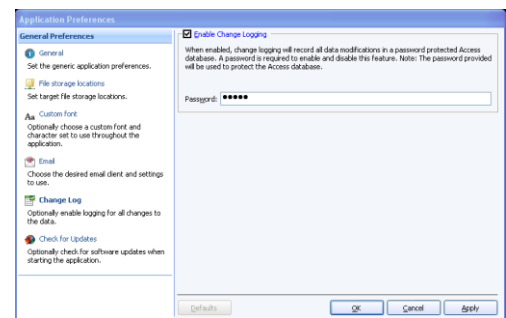
- |                      |                  |
|----------------------|------------------|
| 24- Excel 95 (*.XLS) | 54- SPSS (*.SAV) |
| 31- Paradox 5 (*.DB) |                  |

**Flags Table:** The Actions Table displays the list of possible exception flags that are logged.

- |                      |                           |
|----------------------|---------------------------|
| 0- None              | 16- Data Entry            |
| 1- Blank Response    | 64- Database Verification |
| 2- Multiple Response | 256- Required             |
| 8- Barcode Error     |                           |

### To turn on logging

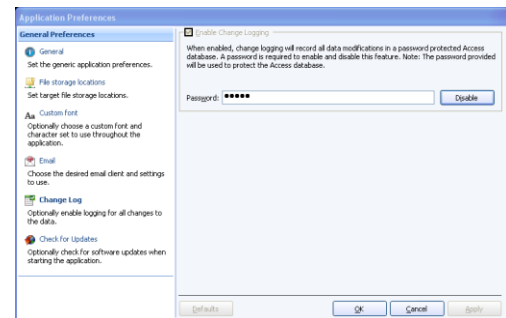
- 1 From the **Remark Classic OMR Data Center**, select the **Tools** menu, then click **Preferences**, then **Change Log**.
- 2 Mark the checkbox for **Enable Change Logging**.
- 3 Enter a password in the **Password** box. Passwords have a maximum of 255 characters.
- 4 Click the **Enable** button.
- 5 Click the **OK** button to close the **Preferences**.



From this point forward, all changes to the data grid are logged.

### To turn off logging

- 1 From the **Remark Classic OMR Data Center**, select the **Tools** menu, then click **Preferences**, then **Change Log**.
- 2 Enter the password that was set when turning on logging in the **Password** box.
- 3 Click the **Disable** button.
- 4 Click the **OK** button to close the **Preferences**.



From this point forward, all changes to the data grid are not logged. If changes have been logged previously, the Access database still exists.

### To access the change log database

- 1 Using Windows Explorer or My Computer, go to  
Windows XP: C:\Documents and Settings\All Users\Application Data\Gravic\Remark Classic OMR\4\Change Logs (where C is the drive on which Remark Classic OMR is installed).  
Windows Vista/Windows 7: C:\ProgramData\Gravic\Remark Classic OMR\4\change log (Note you must have the option to show hidden folders and files on to see this location).

- 2** Double click the Access file (when the database was initially created, it used the date of creation as the filename).
- 3** Enter the password that was used when logging was enabled in the Remark Classic OMR Preferences.

The database opens in Access for your review. It is a fully functioning Access database that you may modify. For example, you could write an Access report to provide change information by user, by form template, etc.

**Note:** If you change the structure of the Access tables from what was originally designed, the database may stop functioning with Remark Classic OMR. Ensure you do not leave the database open in Access while working in Remark Classic OMR or else a database corruption may occur. You are responsible for backing up your own databases. Gravic is unable to recover corrupt databases. Remark Support cannot troubleshoot Access features or issues.





# Remark Quick Stats – Data Analysis

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## 8.1 Overview

Remark Quick Stats is an analysis package that ships with the Remark Classic OMR software. Remark Quick Stats allows you to tabulate surveys and grade tests right in the software. An overview of Remark Quick Stats is provided here; a complete user's guide is installed in PDF format with the software and can be found by clicking

**Start|Programs|Remark Classic OMR 4|Documentation|Remark Quick Stats User's Guide.**

**Note:** The legacy Remark Quick Stats package that was included in previous versions of Remark Classic OMR is no longer available. Most reports should have an equivalent report in the new version of Remark Quick Stats.

Depending on the report selected, Remark Quick Stats can include the following statistics:

Survey statistics and reports include:

- 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
- A Response Report displays the responses for any particular question on one easy-to-read report (primarily used for open-ended questions)
- Crosstabs
- A Group Report displaying means for question groupings

Test statistics and reports include:

- A Grade Wizard steps you through the process of setting up an answer key, grade scale, questions points, learning objectives, benchmark scores and other grading information for your test
- For each item Remark Quick Stats calculates: Mean, Variance, Standard Deviation, Standard Error, Min, Max, Range, Median, Skewness, Kurtosis, T-Value, Percentiles, Confidence Intervals, P-values, 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/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
- A Grade Report displays each student's results on the test
- A Group Report displays grades for specific subsets of your data

A variety of graph types are also included (all of which can be copied and printed):

- Pie
- Bar
- Horizontal Bar
- Line
- Area
- Point
- Polar
- Fast Line

## 8.2 Tabulating Surveys with Remark Quick Stats

Surveys can be tabulated in two ways: Easy Survey and the Survey Wizard. Easy Survey uses the parameters specified in the form template's region properties, such as which questions to tabulate, and then launches Remark Quick Stats. The Survey Wizard allows you to customize the tabulation process by choosing which regions to include, assigning numeric values to answer items, assigning benchmarks, adding question text, specifying question groups and more.

### To access survey tabulation features

- 1 From the **Remark Classic OMR Data Center**, open a form template and either open an existing data file or scan forms.
- 2 Select the **Tools** menu, then select **Analysis** and then click **Easy Survey** or **Survey Wizard**. Alternatively, select the **Analysis** tab in the Task Pane and then choose an analysis option. In addition, the analysis options are available on the toolbar:



Remark Quick Stats opens, allowing you to configure and display reports. Please consult the Remark Quick Stats user's guide PDF for further details about using Remark Quick Stats.

**Tip:** The Survey Wizard and Easy Survey screens and functions are described in complete detail in the Remark Quick Stats User's Guide PDF file. Access the file by clicking **Start|Programs|Remark Classic OMR 4|Documentation**.

## 8.3 Grading Tests with Remark Quick Stats

Tests can be graded in two ways: Easy Grade and the Grade Wizard. Easy Grade uses the parameters specified in the form template, such as which questions to grade and their point values. In addition, Easy Grade uses the first row of data in the data grid as the answer key; therefore, you should insert your answer key before your test data if you plan to use Easy Grade (e.g., scan the answer key first). The Grade Wizard allows you to customize the grading process by choosing which questions to include, assigning point values, setting benchmarks, adding question text, specifying learning objectives, adding scaled scores and more.

**To access test grading features**

- 1 From the **Remark Classic OMR Data Center**, open a form template and either open an existing data file or scan forms.
- 2 Select the **Tools** menu, then select Analysis and then click **Easy Grade** or **Grade Wizard**. Alternatively, select the **Analysis** tab in the Task Pane and then choose an analysis option. In addition, the analysis options are available on the toolbar:



Remark Quick Stats opens, allowing you to configure and display reports. Please consult the Remark Quick Stats user's guide PDF for further details about using Remark Quick Stats.

**Tip:** The Grade Wizard and Easy Grade screens and functions are described in complete detail in the Remark Quick Stats User's Guide PDF file. Access the file by clicking **Start|Programs|Remark Classic OMR 4|Documentation.**



# Remark Classic OMR Data Center Preferences

## 9.1 Overview

This chapter details how to customize the Remark Classic OMR software by setting up preferences. Preferences allow you to set the way the software functions by default, which can facilitate your use of the software.

**Important Note:** The Preferences are global software settings. When you make a change to the Preferences, it affects all actions from that point forward. It does not affect anything you have already completed.

### To access the Preferences

- 1 In the **Remark Classic OMR Data Center**, select the **Tools** menu and then click **Preferences**.

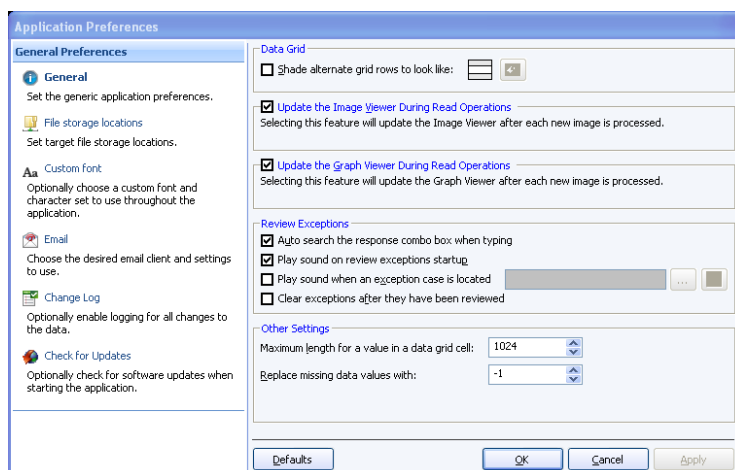
Use the links in the left Task Pane to access all of the available preferences.


**Note:** Each component of the software has its own set of preferences. The Remark Quick Stats preferences are covered in the Remark Quick Stats User's Guide PDF file, which can be accessed by clicking **Start|Programs|Remark Classic OMR 4|Documentation**.

The available Data Center preferences are described in the sections that follow.

## 9.2 General Preferences

General preferences allow you to setup defaults for basic software functions. The following options are available:



Preference Option	Description
Shade alternate rows to look like	Mark this checkbox to shade every other template grid row. Click the paint bucket to choose a shading color.
Update the Image Viewer During Read Operations	Mark this checkbox to have the Image Viewer update with a new form image each time a form is processed. The Image Viewer is located beneath the data grid window. Using this option could alert you to issues such as skewed forms. This option only applies when your default scanner is an OMR/Image scanner.
Update the Graph Viewer During Read Operations	Mark this checkbox to have the Graph Viewer update with a new graph per question each time a form is processed. The Graph Viewer is located beneath the data grid window. It provides a quick glimpse into your data by graphing the active question.
Review Exceptions: Auto search the response combo box when typing	Mark this checkbox so that you can type the first letter(s) of a response into the Response box of Review Exceptions and the software automatically selects the response that begins with those characters. This option applies to questions that employ list box style cells only (Multiple, List and Boolean OMR regions, and Input regions that utilize Database Lookup).
Review Exceptions: Play sound on review exceptions startup	Mark this checkbox to play a sound when Review Exceptions first starts. This feature is useful as an alert if you are processing forms in an unattended manner.
Review Exceptions: Play sound when an exception case is located	Mark this checkbox to play a sound every time an exception case is located in Review Exceptions. Click the ... button to select a .wav sound file. You may also click the button  to preview the sound.
Review Exceptions: Clear exceptions after they have been reviewed	Mark this checkbox to remove the color coding for an exception after it has been reviewed. This setting applies when you review grid cells but do not make changes that would automatically remove the exception color (e.g., if a question is legitimately blank, you might leave it as BLANK with the yellow colored cell). By clearing the exceptions, Review Exceptions does not stop on them the next time it is run.

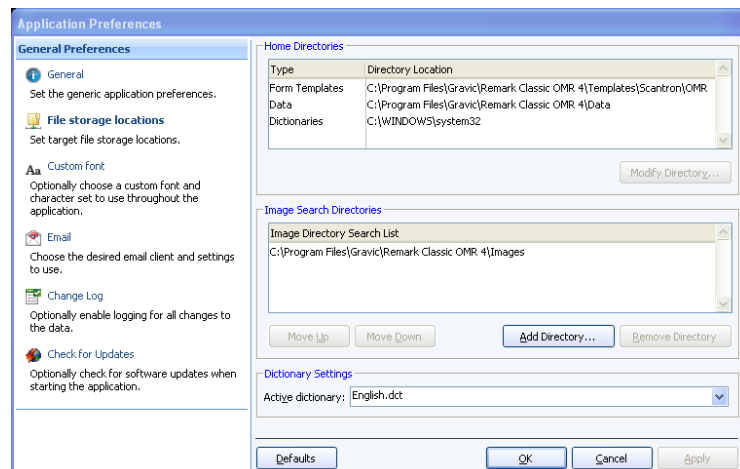
Preference Option	Description
Maximum length for a value in a data grid cell	Enter the maximum number of characters allowed in a data grid cell. You are not able to enter more characters than allowed (e.g., when entering text using an Input region). Note that performance may be affected by data grid cells that contain very large amounts of text.
Replace missing data values with	Enter the value to be used when missing data are encountered during a data file export. Missing data means that the piece of data captured does not match what was defined as Labels in the form template. A MULT, BLANK and ERROR left in the data set would all be considered missing. If you typed a response in a list cell in the grid but it did not match the labels defined, this data would also be considered missing (e.g., "A" is defined in the form template, but you type "a"). The Missing Value is also used when running reports in Remark Quick Stats. The default value is -1.

### 9.3 File Storage Location Preferences

File Storage Location preferences allow you to setup the default directories that are used to store various file types. If you prefer to store files on a network drive, you can enter that location here (ensure that you have permission to fully access that drive).

**Special Note for Image-Enabled Scanners:** If you are using an image-enabled scanner, you are not able to create and edit form templates. You must use the templates found in C:\Program Files\Gravic\Remark Classic OMR 4\Templates\Scantron\OMR-Image. There are required files that match these templates; therefore changing the templates causes them to stop working with the software. If you need to move these templates to a different folder, move the entire folder structure without altering it or renaming any files.

The following options are available:

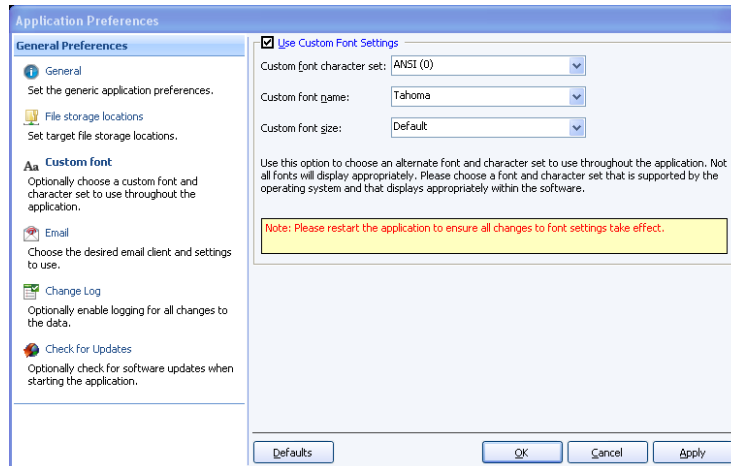


Preference Option	Description
Form templates	<p>Sets the default location in which to store form template files. Highlight this selection and then click the <b>Modify Directory...</b> button to set a directory. The default directory is C:\Program Files\Gravic\Remark Classic OMR 4\Templates\Scantron.</p> <p><b>IMPORTANT NOTE:</b> If you are using an OMR/Image scanner and need to move the form templates to another location, you must copy over the entire C:\Program Files\Gravic\Remark Classic OMR 4\Templates\Scantron\OMR-Image folder and all of its contents without changing the structure to that location.</p>
Data	<p>Sets the default location in which to store data files. Highlight this selection and then click the <b>Modify Directory...</b> button to set a directory. The default directory is C:\Program Files\Gravic\Remark Classic OMR 4\Data.</p>
Dictionaries	<p>Sets the default location in which to store spell check dictionary files. Highlight this selection and then click the <b>Modify Directory...</b> button to set a directory. The default directory is C:\Windows\System32.</p>
Image Directory Search List	<p>Sets the locations(s) in which images are stored for processed forms. This option only applies when your default scanner is an OMR/Image scanner. When a cell in the data grid is clicked, the stored image file is displayed in the Image Viewer. The Image Viewer can be used for image-assisted data entry, Review Exceptions and in-cell editing. Use the <b>Add Directory...</b> button to add any directories in which you plan to store image files for processed forms. Remark Classic OMR searches for these images in the order in which the directories are specified. Use the <b>Move Up</b> or <b>Move Down</b> buttons to change the order, and the <b>Remove Directory</b> button to remove a directory from the search list. Note that you can store images in any directory using the Read Wizard. However, providing frequently used directories in the Image Directory Search List aids the Remark software in finding images to display whenever a data file is opened.</p>
Active Dictionary	<p>Sets the active dictionary to be used for <b>Spell Checker</b>. Click the down arrow to view any dictionaries that are currently installed in your default <b>Dictionaries</b> directory.</p>



## 9.4 Custom Font Preferences

Custom Font preferences allow you to setup the default fonts to use throughout the application. Mark the Use Custom Font Settings checkbox to choose a font to use throughout the application, allowing you to customize the software's look. You may choose a character set, font and font size. You should choose a font that is supported by your operating system. Please note that not all fonts look optimal in the software. You should restart the application after making any font changes.

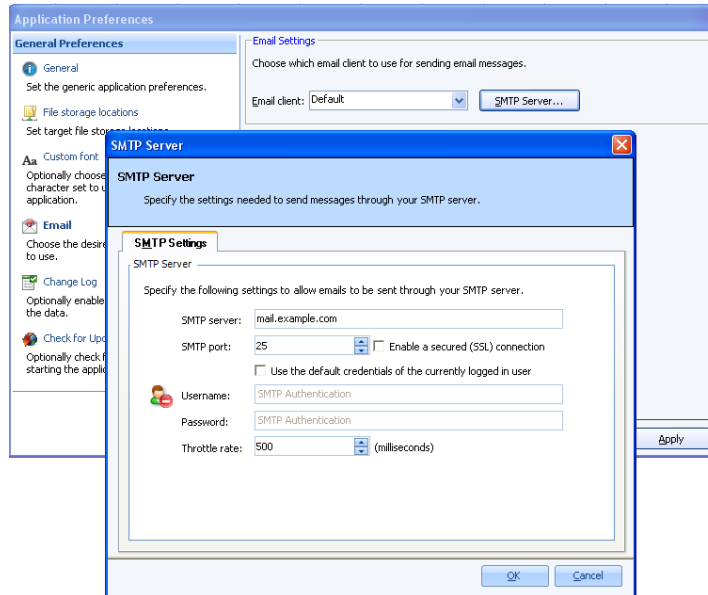


## 9.5 Email Preferences

Email preferences allow you to set your internal SMTP server or Outlook as your default email client. This setting directly applies to the email option available from the File menu (Section 7.8), which can use either your SMTP server or Microsoft Outlook. When using Outlook, Outlook opens with your file(s) as an attachment. When using Default (SMTP), an internal email client opens that utilizes your SMTP server.

The Send Wizard (Section 7.9) uses the SMTP server only. If you set up your SMTP server settings in the Preferences, they are available by default when using email with the Send Wizard.

SMTP stands for Simple Mail Transfer Protocol and is the Internet standard for transmitting email across networks. It is likely your organization has a running SMTP server already set up. You just need to find out general information about the server. You will likely need to consult with your network/email administrator to obtain information about your SMTP server. Please use the following table as a guide to have your administrator provide the proper settings:



Option	Description
SMTP Server	This is the name, address or IP address of the mail server.
SMTP port	The SMTP port is usually 25 but may vary with your email server.
Enable a secured (SSL) connection	If desired, use a secure connection by marking the checkbox for <b>Enable a secured (SSL) connection</b> . SSL encrypts data as it is transmitted. Your SMTP server must be configured to use SSL in order for this feature to work.
Use the default credentials of the currently logged in user	If you need to use authentication for your SMTP server, you can enter credentials or use those of the user logged in to the computer. Mark the <b>Use the default credentials of the currently logged in user</b> checkbox to utilize the user's credentials (e.g., the person logged in when sending the emails from Remark Classic OMR). Otherwise, continue to the next step to enter specific credentials.
Username and Password	If authentication is required, and you are not using the credentials of the currently logged in user, enter the <b>Username</b> and <b>Password</b> , as supplied by your network/email administrator.
Throttle rate	The throttle rate adds a delay while sending emails. The default setting is 500ms, meaning that one email is sent every 500 ms (in other words, two emails are sent per second). Throttling emails keeps the SMTP server from being overloaded when sending large numbers of emails. Unless you plan on sending hundreds of emails at one time, the default setting of 500 is likely fine.

To choose your default email client, in the **Email client** drop-down list, choose **Default** to use your SMTP server or **Outlook** to use Microsoft Outlook 2007/2010. If using your SMTP server, click the **SMTP Server** button and put in the settings as described in the previous table for your SMTP server. These settings apply to both the email option from the File menu and the Send Wizard.

## 9.6 Change Log

As changes are made in the Remark Classic OMR Data Center, they can optionally be logged, allowing you to see what changes were made and who made them. Logging is turned on and off in the Remark Classic OMR Preferences. It can only be turned off if you know the password used when turning on the feature. Changes made to the data grid (edits, review exceptions, review duplicates, clipboard, open, save, etc.) are logged in a password protected Access database in the following location:

Windows XP: C:\Documents and Settings\All Users\Application Data\Gravic\Remark Classic OMR\4\Change Logs (where C is the drive on which Remark Classic OMR is installed).

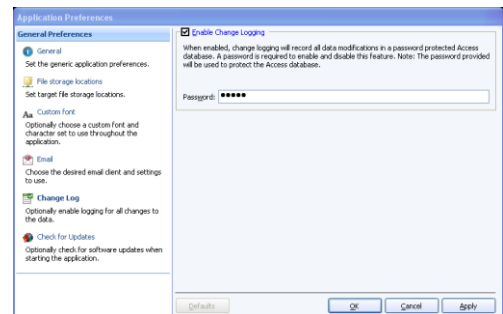
Windows Vista/Windows 7: C:\ProgramData\Gravic\Remark Classic OMR\4\change log (note you must have the option to show hidden folders and files on to see this location).

When the database is initially created, it uses the date of creation as the filename. From that point forward, all changes to all templates/data files are stored in that Access file as long as the feature is turned on. Data file types, exception flags and actions are all listed with a numeric equivalent in the database. The additional tables in the database explain each of the numeric values. Once a database reaches 10MB in size, a new database is created the next time Remark Classic OMR is opened.

Logging changes is covered in greater detail in Section 7.11.

### To turn on logging

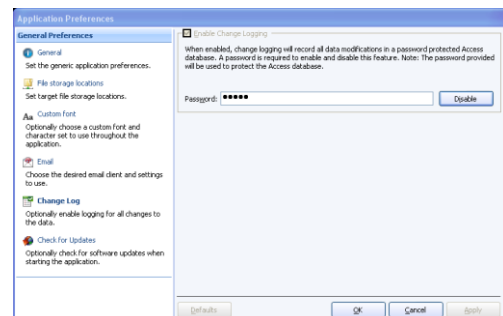
- 1 From the **Remark Classic OMR Data Center**, select the **Tools** menu, then click **Preferences**, then **Change Log**.
- 2 Mark the checkbox for **Enable Change Logging**.
- 3 Enter a password in the **Password** box.
- 4 Click the **Enable** button.
- 5 Click the **OK** button to close the **Preferences**.



From this point forward, all changes to the data grid are logged.

### To turn off logging

- 1 From the **Remark Classic OMR Data Center**, select the **Tools** menu, then click **Preferences**, then **Change Log**.
- 2 Enter the password that was set when turning on logging in the **Password** box.
- 3 Click the **Disable** button.
- 4 Click the **OK** button to close the **Preferences**.



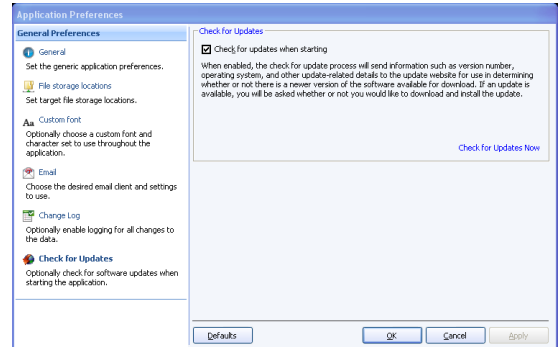
From this point forward, all changes to the data grid are not logged. If changes have been logged previously, the Access database still exists.

## 9.7 Check for Updates

Remark Classic OMR has the ability to check automatically for software updates. You can check at any time by clicking the Help menu and then choosing Check for Updates. You can also have the software check for an update every time it starts up. When this option is turned on, every time you start the software, it sends information about your current version to the update website and lets you know if there is a newer version of the software available. If an update is available, you are prompted to install it. The Check for Updates window also has the ability to do an immediate check for updates.

### To automatically check for updates

- 1 Select the **Tools** menu, then click **Preferences**, then **Check for Updates**.
- 2 Mark the checkbox for **Check for updates when starting** to turn on the automatic check for updates.
- 3 [Optional] If you would like to see if an update is available immediately, click the **Check for Updates Now** link.
- 4 Click the **OK** button to close the Preferences.



The next time the software is started, it automatically checks for an update. If an update is found, and you would like to install it, follow the on-screen prompts. You must have an Internet connection to download the update. If no updates are available, you receive a message indicating that your software is up to date.

The Remark Classic OMR Automatic Update collects some system configuration data in order to provide you with updates that apply to your installation. This information includes:

- Product Name
- Remark Serial Number
- Remark Authentication Code
- System Finger Print
- Software Version and Build Number

Gravic, Inc., author of the software, is committed to helping protect your privacy. Using the automatic update feature does not collect your name, address, email address, or any other form of personally identifiable information. Your Internet Protocol (IP) address is logged when you connect to the Gravic website, but this address is only used to generate aggregate statistics.

# Understanding Error Messages

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## A.1 Error Message Details

This appendix details the different error messages in Remark Classic OMR. Use this appendix to gain a better understanding of any problems that may arise while using the software. The following table lists error class, error category, error number and the error text along with some enhanced instructions where applicable.

<b>Class #</b>	<b>Category</b>	<b>Error #</b>	<b>Error Text</b>
0100	Memory Errors	100-106	Not enough memory to perform specified operation. Close other applications to free up more memory or restart Windows. Ensure that your computer meets the minimum system requirements.
0200	Windows Errors	200-206	Windows function errors (internal to Remark Classic OMR). Could signify that the Windows environment is functioning improperly. Close other software applications and restart Windows.
1000	File Open Errors	1001-1012	Remark Classic OMR could not open the specified file. The file no longer exists or could not be opened for an unknown reason. Possible causes could be: a full hard drive, an inaccessible network drive, or the file is being used by another application.
1100	File Read Errors	1101-1103	Error reading the specified file. Possibly indicates a corrupt file. Possible causes could be: a full hard drive, an inaccessible network drive, or the file is being used by another application.
1200	File Write Errors	1201-1214	Error occurred while writing file to disk. Possible causes could be: a full hard drive, an inaccessible network drive, or the file is being used by another application.
1300	File Access Errors	1301-1310	Error occurred while attempting to access a file. The file may be damaged. Possible causes could be: a full hard drive, an inaccessible network drive, or the file is being used by another application.
1400	File Close Errors	1401-1403	An error occurred while trying to close a file. Check the amount of free disk space. Possible causes could be: a full hard drive, an inaccessible network drive, or the file is being used by another application.

<b>Class #</b>	<b>Category</b>	<b>Error #</b>	<b>Error Text</b>
1500	File Creation Errors	1501-1502	An error occurred while trying to create a file. Check the amount of free disk space. Possible causes could be: a full hard drive, an inaccessible network drive, or the file is being used by another application.
1700	Miscellaneous File Errors	1700-1703	A file cannot be accessed due to a bad name or path. Check that the file name is valid and that the target directory can be accessed from your system.
		1704	A file has already been opened by Remark Classic OMR or by some other application and cannot be opened again. Close other applications using this file.
		1705	The disk is full. Delete some files or try saving to another location.
		1706	Too many files are currently open on your system. Close some applications and try the operation again.
		1707-1708	Permission was denied or the disk was not ready when trying to write the file. Also, check the region names you are using in the form template for invalid characters, such as commas, parentheses, etc.
		3102 MULT	Multiple answers were entered for a region in which multiple responses were not permitted.
		3103 BLANK	No response was given.
3200	Barcode Errors	3200	Unable to recognize barcode. Check to ensure it is a supported barcode type for your OMR scanner.
4000	Scanner Errors	4000	The scanner is not ready. Check to make sure it is connected correctly and that the power is turned on.
		4001	No scanner is selected. A scanner cannot be used until it is selected in the Scanner Properties window.
6000	Output File Errors	6000	Error saving because the template grid contains no data. You cannot save an empty grid.
		6001	Error saving the data because the specified data do not correspond to the selected form template file. The data may contain misplaced characters, such as: commas, periods, semicolons and parentheses. Use Find and Replace to remove any invalid characters for your database type.

<b>Class #</b>	<b>Category</b>	<b>Error #</b>	<b>Error Text</b>
		6002-6005	Error saving the data in the selected file format because a cell exceeds the maximum size for storage. Edit the text in the grid or save to another file format. Some file formats maintain a maximum cell size, question number, etc. (See Section 7.6 Saving Data.)
		6006	Too many questions to save in dBase (.DBF) format. Maximum of 128 questions permitted. Try saving the data to another file format.
		6007	Too much data to save in dBase (.DBF) format. Maximum of 4,000 bytes per record. Try saving the data to another file format.
		6008-6009	Unable to save to Fixed (.SDF) file format because responses are not of a fixed size. Data in each column must contain the same number of bytes. For example, if the possible answers for a question are 1 - 10, you should set the region up using the labels: 01, 02, 03... ..09, 10 so that each answer item will contain two bytes.
6100	File Import Errors	6100-6104	Error importing specified file format. Incompatible data encountered during the conversion.
		6105	The data contained in the data file do not correspond to your form template file. The data were truncated. The data file contains more grid columns than the current template grid. Make sure you have selected the correct form template and data file.
		6106-6108	Error importing SPSS legacy (.SAV) file format. Note that SPSS reformats data when saving; consequently, data saved as compressed in SPSS may not import back into Remark Classic OMR. You must uncompress the data within SPSS before opening it in Remark Classic OMR.
		6109-6110	Error importing the Fixed (.SDF) format file.
7000	Database Memory Errors	7000	The application doesn't have enough memory or resources to complete the selected database operation. Close other applications, files and windows to free up more memory or restart Windows. Ensure that your computer meets the minimum system requirements.
		7001	You have reached the limit on the number of files that can be opened at one time. Close one or more files, and then try the operation again.

<b>Class #</b>	<b>Category</b>	<b>Error #</b>	<b>Error Text</b>
		7002	You have reached the limit on the number of tables and/or databases that can be opened at one time. Close one or more tables and then try the operation again.
		7003	The database has reached its maximum size. To add data to this database, you must first reduce its size by deleting data.
		7004	You tried to add new records to a Microsoft Excel version 3 or version 4 file, but the file is full. Files of these types can hold a maximum of 16,384 records.
		7005	You tried to perform a Btrieve operation that involves too many Memo or OLE object regions. Reduce the number of Memo and OLE object regions, and then try the operation again.
		7006	You tried to perform an operation that involves more than 255 regions. Reduce the number of regions, and then try the operation again.
7100	Database Syntax Errors	7100	A syntax error occurred. Check the data to make sure it was entered correctly. This error can occur if an incorrect value type is provided as part of an expression. For example, textual data entered into a numeric region.
		7101	Unable to locate specified table, region or index. Check the name to make sure it was entered correctly and then retry the operation.
		7102	The specified file, table or region name doesn't follow standard naming conventions. Enter a new name, and then try the operation again. Consult your database's documentation for information on valid names and naming limitations.
7200	Database Read Errors	7200	You tried to access a database that is currently in use by another user or application. Wait for the other user or application to finish working with the database, and then try the operation again.
		7201	An error occurred updating the database. The database, file, table or region is defined as read-only.
		7202	An error occurred accessing the specified path or filename. The path or filename is not valid. Check the name and path to make sure they were entered correctly then retry the operation.



<b>Class #</b>	<b>Category</b>	<b>Error #</b>	<b>Error Text</b>
		7203	A permissions error occurred accessing the specified database, table or object. You don't have the necessary permissions. Contact the database administrator regarding access rights.
		7204	A file, disk or network access error occurred. Resolve the error condition and then retry the operation.
		7205	An error occurred attempting to create the database, table or object because it already exists. This error can also occur if an ODBC database contains several tables with the same name.
		7206	An error occurred attempting to open or access the database file. The file is either invalid or corrupt.
		7207	An error occurred trying to access a necessary database file or table. Resolve the error condition and then retry the operation.
		7208	An attempt was made to import or attach to an empty text file. To import or attach a text file, the file must contain data.
		7209	You tried to perform an operation that would have violated referential integrity rules for related tables.
		7210	The installable ISAM you are using does not allow updates and/or deletes to records in external tables. You can add new records, though.
		7211	You cannot use ODBC to access an external Microsoft Access or ISAM database table. Use Remark Classic OMR's direct support of the database instead.
7300	ODBC Errors	7300	Using ODBC, you tried to perform an operation on data in a SQL database. This error may occur when the SQL database is on a network drive and the network is not connected or when the path specified is invalid.
		7301	An error occurred attempting to update the ODBC table. Possible causes could be the database is read-only, the database is on a network drive and the network is not connected or the update would have caused a rule violation.
		7302	The ODBC remote query timeout expired. The ODBC server may not be properly installed, or a required network connection isn't active. Check the network connection or contact your system administrator, and then try the operation again.

<b>Class #</b>	<b>Category</b>	<b>Error #</b>	<b>Error Text</b>
		7303	The ODBC table definition has changed since you created the link. End the current operation and then retry.
		7304	An error occurred attempting to lock records in the ODBC database. All records in the database cannot be locked.
7400	Database Index Errors	7400	An error occurred attempting to create an index for the database because the index already exists.
		7401	An error occurred trying to create an index because the index definition is invalid.
		7402	An error occurred adding a record to the table or updating the table because the current record contains an invalid value in the region(s) defined as the primary key.
		7403	An error occurred making changes to the table because of a duplicate value in a region that is the underlying table's primary key or an index that doesn't allow duplicates. The changes were unsuccessful.
		7404	The operation you attempted requires a (primary) database index. An index was not found. The operation was unsuccessful. Create a primary index for this database and then retry the operation.
		7405	An error occurred creating the index. Possible causes: the key regions are named improperly, there are duplicate records based on this index or there were too many indexes already defined.
		7406	An error occurred deleting the index. The current index cannot be deleted.
7500	Database Registry Errors	7500	An error occurred initializing the database engine due to invalid initialization or registry settings or an engine conflict.
		7501	Unable to locate current record. Move to or select another record, and try the operation again.
		7502	You tried to use a Paradox table, but the table's associated lock (.LCK) file is outdated. Delete the .LCK file and then try the operation again.
		7503	An unexpected error occurred when you tried to access data in an attached Btrieve table. Try the operation again, or contact your system administrator or network administrator.

<b>Class #</b>	<b>Category</b>	<b>Error #</b>	<b>Error Text</b>
		7504	You tried to perform an operation that requires the Btrieve engine. To access Btrieve files, you must have purchased and installed a copy of the stand-alone Btrieve for Windows engine. This file must be in your Windows System directory.
		7505	Cannot perform this operation with an unsupported database version. Convert the file you want to use to a supported version and/or data type and then retry the operation.
		7506	The operation stopped before its normal completion. Some data changes may not have been saved.
		7507	The external database driver returned an error. This error can be caused by performing an operation not supported on this type of external database.
		7508	The database you are attempting to use has an unspecified problem and, as a result, it is marked as corrupt. Check your database's documentation for this error code.
7600	Database Record Errors	7600	The database you are attempting to use has an unspecified problem and, as a result, it is marked as corrupt. Check your database's documentation for this error code.
		7601	You defined a table with records larger than can be supported. Redefine the table by making some regions shorter or by removing unneeded regions.
		7602	A region error occurred due to a data type conflict or an invalid data type.
		7603	An error occurred saving a region value. The value specified is invalid.
		7604	The specified table doesn't contain the specified region(s). Check the spelling of the region name(s) in the form template and ensure that they do not contain invalid characters (commas, parentheses, etc.).
		7605	None of the import region names matches regions in the associated table. At least one region name in the import table and one region name in the appended table must match.
		7606	An error occurred creating the table or appending the region because more than one region was defined with the same name. Each region name in a table must be unique. Check the region name(s) specified in the form template.

<b>Class #</b>	<b>Category</b>	<b>Error #</b>	<b>Error Text</b>
		7607	You referred to a record that you deleted or that another user in a multi-user environment deleted. Move to another record, and then try the operation again.
		7608	You attempted to import an invalid range of spreadsheet cells.
		7609	The first row of data contains invalid region (region) names, such as quoted and unquoted strings in the same region name. Check the import table for properly matched quotation marks, and then try the import operation again.
		7610	An error occurred creating the table or index definition because it does not contain any regions.
		7611	An error occurred attempting to change a table or region definition because the object has already been appended to the corresponding object.
		7612	An error occurred attempting to delete a region. You can't delete a region included in an index. To delete a region that is part of an index, you must first delete the index.
		7613	Text file specification region separator matches decimal separator or text delimiter. Two or more delimiters settings used by the Text ISAM are the same.
9000	Miscellaneous Program Errors	9000	These miscellaneous errors signify an internal problem or undocumented error type. Please report any reproducible occurrences of these errors to Gravic Technical Support. Send a screenshot of the error and the steps you took leading up to the error.
9100	DLL Errors	9100	The DLL file is in use by other applications and could not be opened. Close other applications and restart Windows.
		9101	The DLL could not be loaded because it could not be located on your system. Make sure all required DLL files are in directories where they can be found. Uninstall and reinstall the software.
9200	Clipboard Errors	9200	This error indicates that a problem was encountered trying to copy or paste data to or from the Clipboard. This error could occur if too much data is requested or if an invalid object is being copied to the clipboard.