Remark Office OMR Demo Tutorial Analyzing Surveys

Tutorial Overview

Thank you for downloading a demo version of Remark Office OMR. In order to allow you to sample the functionality in the software, we have included this tutorial. The tutorial works with pre-supplied sample image files so that you can walk through the various steps of using the software. The sample files used in this tutorial are located in your My Documents folder in a subfolder called Remark Office OMR\Tutorials. This tutorial outlines how to create a form template for a basic survey form. It also details how to process forms, correct the output and run a report.

Note: If you plan to use Remark Office OMR to collect data from test forms, there is a separate tutorial accessible from the Help menu that focuses on tests.

Important Note: The tutorials provided with the software work with image files that are included when you install the Remark Office OMR demo. In reality, the software can read pages directly from a scanner, or import scanned image files. Even though you are importing image files, the steps you are taking are very similar to scanning directly in the software. If you process your own forms directly with a scanner, you choose the options to scan instead of read from images within the software. The tutorial still gives you a good overview of how the software works in order to prepare you for using your own forms and scanner.

There are some basic concepts to review before you get started with the tutorial. Please note that there are several ways to access basic software functions. Three of the most common methods include:

- **Getting Started Task Pane:** The task pane on the left side of each Remark Office OMR window can be used to access the most common functions in the software. The task pane automatically updates based on the functions you perform. You can show or hide the task pane by selecting the **View** menu and then clicking **Task Pane**.
- **Toolbar:** The toolbar is the series of icons across the top of each Remark Office OMR window. These icons represent shortcuts for common functions within the software. Hover your mouse over any button to see tool tip text explaining the functionality of the button.
- **Menus:** The pull-down menus have all of the functions available within the software. Many of these functions can also be found in the toolbar and task pane.

It is up to you to decide how you wish to access software functions. We will work with all three methods to allow you an understanding of each.

Before we begin, we need to touch briefly on some important concepts that may be new to you. Just take in the big picture for now; details will be built as these concepts are used in the lesson.

Form Template Overview

The following concepts are important to understand when performing this tutorial. Here is a quick overview to help you get started:

What is a Form Template File?

The first thing you do in Remark Office OMR is create form templates for the forms you wish to process in the software. A form template file contains the information needed to instruct Remark Office 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 will create a form template for each form that you wish to process using the software.

How are Form Templates Created?

Form templates are created by scanning an unmarked copy of the form (or importing a scanned image) to create an equivalent image in the Remark Office OMR Template Editor. You then 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 are now ready to get started with the tutorial.

The Restaurant Evaluation Survey

This tutorial quickly teaches you how to use the basic software functions and how to easily navigate the software's user interface. You create a form template for a restaurant evaluation. This evaluation is a typical survey form containing several types of areas that Remark Office OMR recognizes, including text, a barcode, OMR bubbles and an area for gathering comments. The survey asks restaurant patrons to provide details about their restaurant experience. The survey evaluates several restaurant chains within a corporation. A survey such as this one can be scanned to produce data and subsequently, reports to show how each restaurant is performing.

You will perform the following steps in this tutorial:

- Create the Restaurant Evaluation form template
- Process completed Restaurant Evaluation forms
- Review and correct the data output
- Analyze the Restaurant Evaluation data with Remark Quick Stats®

The next page shows an image of the restaurant evaluation survey so you can get an idea of the type of form being used in this demonstration. The survey was created in Microsoft Word. You can also find a copy of this form in My Documents\Remark Office OMR\Tutorials\Demo Tutorial 2.

Please	indicate your level of agreement or disagreeme	ent with the f Strongly	ollowing s	tatements. Neither	Disagree	Strong
		Agree		Agree or Disagree	2.003.00	Disagre
The foo	od was served hot and fresh	۲	۲	۲	۲	3
The me	enu had a sufficient selection of items	۲	۲	۲	۲	1
The qu	ality of food was excellent	۲	۲	۲	۲	•
The foo	od was tasty and flavorful	۲	۹	۲	۲	•
	ng did you wait to be seated (round to the t minute)?	The wait	ing time w	as:		
۲	D	O Abo	utwhatle	pected		
3	0			Ian I expecte	ed	
۲	۲	O Muo	h longer th	an I expecte	d	
۲	۲					
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-	_					
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	□ ① ① ② rank the following items in terms of importance ant).		-		-	the leas
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	T T Tank the following items in terms of importance ant). seating y, prompt service	0 0	- @	@ @	۰ ۹	the leas
Please import Friendly Food q	T T Tank the following items in terms of importance ant). seating y, prompt service uality	0 0 0	0 0 0	@ @	4 9 9	the leas
	T T Tank the following items in terms of importance ant). seating y, prompt service uality	0 0	- @	@ @	۰ ۹	the leas
Please import Prompt Friendly Price/vi	T T Tank the following items in terms of importance ant). seating y, prompt service uality	0 0 0	0 0 0	@ @	4 9 9	the leas
Please import Prompt Friendly Price/vi	T T Tank the following items in terms of importance ant). seating y, prompt service uality alue	0 0 0	0 0 0	@ @	4 9 9	the leas
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Please import Prompt Friendly Price/vi	T T Tank the following items in terms of importance ant). seating y, prompt service uality alue	0 0 0	0 0 0	@ @	4 9 9	the leas
Please import Prompt Friendly Price/vi	T T Tank the following items in terms of importance ant). seating y, prompt service uality alue	0 0 0	0 0 0	@ @	4 9 9	the leas
Please import Prompt Friendly Price/vi	T T Tank the following items in terms of importance ant). seating y, prompt service uality alue	0 0 0	0 0 0	@ @	4 9 9	the leas
Please import Prompt Friendly Price/vi	T T Tank the following items in terms of importance ant). seating y, prompt service uality alue	0 0 0	0 0 0	@ @	4 9 9	the leas
Please import Prompt Friendly Price/vi	T T Tank the following items in terms of importance ant). seating y, prompt service uality alue	0 0 0	0 0 0	@ @	4 9 9	the leas
Please import Prompt Friendly Price/vi	T T Tank the following items in terms of importance ant). seating y, prompt service uality alue	0 0 0	0 0 0	@ @	4 9 9	the leas
Please import Prompt Friendly Food qu Price/va Do you	T T Tank the following items in terms of importance ant). seating y, prompt service uality alue	0 0 0	0 0 0	@ @	4 9 9	the leas

Creating the Restaurant Evaluation Form Template

The first step in this process is to create a form template outlining the areas on the form that you want the software to recognize.

To begin setting up the Restaurant Evaluation form template

- 1. If not already running, start **Remark Office OMR** (Start|Programs|Remark Office OMR Demo|Remark Office OMR Data Center).
- Begin a new form template. Select the File menu and then click New form template. Alternatively, in the left-hand panel, known as the Task Pane, select New. Any of these actions opens a second window containing the Remark Office OMR Template Editor.

Tip: If you use **File|New Form Template** or the **New** link in the Task Pane, the Template Editor opens with the new form template window already opened for you.

 [Optional] If the Template Editor opens but you do not see the Properties – Form Template (New) window, select the File menu and then click New Form Template. Alternatively, select the New link in the task pane.

The **Properties – Form Template (New)** window opens. This window is where you describe your form to Remark Office OMR. You will do this by entering basic information about your form, including the form template description, page size and page orientation.

Properties - Form Tem	late (New)	
Description (optional):	Restaurant Evaluation	
Page si <u>z</u> e:	US Letter 👻	
Unit of measure:	Inches 💌	
Page orientation:	Portrait 💌	
	Capture I <u>m</u> age	

- 1. Enter **Restaurant Evaluation** in the **Description** box.
- 2. Locate the **Page size** area where you can tell the software the size paper your form uses. Select **US Letter** from the drop-down list.
- 3. Locate the Page orientation area and select Portrait.
- 4. Click the Capture Image button to continue.

The **Create Page Elements** window appears. The Create Page Elements window allows you to either acquire an image of your form from your scanner, or acquire an image of your form from an existing image file. Each page in a form template is created using an image of the appropriate page in your form. The image allows you to see the form so that you can easily teach Remark Office OMR how to read it.

To obtain a form template image

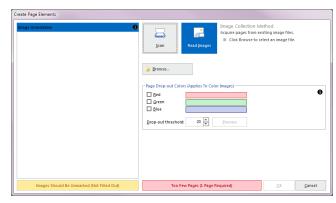
As previously mentioned, there are two ways to acquire an image for a form template page. Images can be acquired by scanning to create a new image file or by opening an existing image file. We are acquiring our image from a pre-scanned image file stored on your computer.

- 1. Click the button for **Read Images**.
- 2. Click the Browse button. The Select Image File window opens.

 Select the Remark Office OMR Demo Tutorial 2– Restaurant Evaluation Survey.tif file from the Tutorial folder of your Remark Office OMR Demo installation directory (e.g. Documents\Remark Office OMR\Tutorials\Demo Tutorial 2) and then click the Open button.

Once an image is acquired by opening an existing image file, the Template Editor displays a thumbnail of the image for your approval.

4. When a thumbnail image of your form appears, click the **OK** button to accept the image.



Once the thumbnail image is accepted, the Template Editor opens the new form template where you can begin defining the regions. You see a tree view (item list) on the left and an image representation of your form on the right.

To define form template regions

The purpose behind making a form template is to tell the software where to locate the information on your specific form and how to understand your specific data requirements. The intent of this sample form is to expose you to a variety of region types. The following table lists the seven regions on the Restaurant Evaluation form and their corresponding region types:

Area on Form	Corresponding Region Type
Evaluation Questions	OMR (Multiple)
Wait Time in Minutes	OMR (Grid)
Wait Time Expectation	OMR (Multiple)
Ranking Questions	OMR (Rank)
Comments	Image
Restaurant Chain	Barcode
Restaurant Number	OCR

To define the evaluation questions as an OMR region

There are four questions on the form that ask the customer to evaluate his or her dining experience. All four questions share the same evaluation scale of Strongly Agree to Strongly Disagree, which allows them to share one set of labels on the form. This compact and logical question area can be captured with a single OMR region even though it contains five separate questions. Defining similar questions in one region saves time and effort, and is preferable.

- 1. Highlight the **Page 1** node in the tree view, if not already highlighted.
- Select the Page menu, click Insert and then click OMR Region After Selected Page, or click the OMR toolbar button. Alternatively, select the Draw Regions link in the Task Pane and then Insert OMR Region.

The mouse changes to a crosshair.

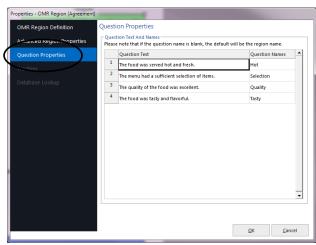
- 3. Place the cursor at the top left of the bubble group, then press and hold the left mouse button while dragging the rectangle to the bottom right corner of the region, capturing all four rows and five columns of bubbles in the region. When creating OMR regions, you want to leave a small buffer space between the region box and the bubbles (about 1/8 inch). (Do not worry if your box is not perfect; you can adjust it when you finish creating the region.)
- Strongly Neither Disagree Aaree Strongly Agree or Disagree Disagree Agree 0 ۲ 0 ٢ 0 ۲ 3 ٢ 0 0 6 ٢ ۲ ۲ 0 6 ۲ ۲ 0
- 4. After positioning the box, release the mouse button. The **Properties OMR Region** window appears. The Properties OMR Region window allows you to enter information that will define the OMR region and the data it produces, including:
 - **Region Definition** (the area containing **Region name**, the type of OMR region or **OMR type** and the **Data type**).
 - **Region Layout** (the area detailing how many **Rows** and **Columns** of marks are contained in the region and their orientation).
 - Response Choices (the Labels you want to see as your data).
- 5. In the **Region Definition** area, enter **Agreement** in the box titled **Region name**. This name is used to identify the region in the data set.
- 6. For the **OMR Type**, select **Multiple**. The Multiple region designation is used for typical multiple choice style questions.
- For the **Data type**, select **Textual**. This region contains a textual scale of agreement statements, so textual data is appropriate.
- 8. In the **Region Layout** area to the right, select **Row** for **Region orientation**. Region orientation lets Remark Office OMR know how the region is structured on the form. For this question, each row represents one question.

OMR Region Definition	OMR Region		on and Deta	ail			
Advanced Region Properties	Region Defini				Region Layout		
Question Properties	Region name:	Agreemen	t		Region orientation	on: Row	*
Question Properties	OMR type:	Multiple		- 6	Columns in the r	egion:	5 🚔
	<u>D</u> ata type:	Textual		*	<u>R</u> ows in the regi	on:	4 🔺
					Read bottom	-to-top	
	- Response Cho	oices					
	Possible label	scales:	Ŧ				•
				Labels		Values	
	Sage Curre	ent Scale	Edit	Strongh	/ Agree	5	
				Agree		4	
				Neither	Agree or Disagree	3	
				Disagre	e	2	
	<u>N</u> A label:			Strongh	Disagree	1	_
	None		*				-
	Define Eor	mat (Grid Ty	pe Only) —				
						Re	et

- 9. Ensure that **5** was entered in the **Columns in the region** box and **4** in the **Rows in the region** box. The region size lets Remark Office OMR know how many rows and columns of marks are in the region and the software tries to figure this out for you.
- 10. Enter the appropriate Labels in Response Choices. For the Labels area, click the down arrow for Possible label scales and choose the scale Strongly Agree to Strongly Disagree (5) from the list of choices. This range represents the response choices for the bubbles in all five columns, moving from left to right. The entries will fill the Labels grid automatically. The Labels represent the response choices for each bubble, moving from top to bottom. You will notice that as you type Labels, or when they auto-fill, numbers will automatically fill the Values column to the right. While the Labels represent the actual data you will see returned from the processed forms, the Values represent the information Remark Office OMR uses to perform any statistical analysis (such as calculating means).

 In the Task Pane on the left, select Question Properties. The next step is to enter the Question Text and Question Names for each of the five questions.

Tip: Question Text appears on the reports generated in Remark Quick Stats and is useful when exporting to some data formats. **Question Names** can be used to enter individual names for every question within one OMR region. If the Question Names grid is left blank, the software uses the Region Name defined on the previous screen and append sequential numbers to the end of the name to differentiate the questions. Individual Question Names are useful if you are exporting data to



an existing file that requires specific field names (e.g. an Access table).

12. Enter the Question Text and Question Names for each of the four questions as shown here:

Question Text:Question Names:The food was served hot and fresh.HotThe menu had a sufficient selection of items.SelectionThe quality of the food was excellent.QualityThe food was tasty and flavorful.Tasty

13. Click the **OK** button to return to the main Template Editor window.

You now see a green box around the **Restaurant Evaluation** region in the form area, identifying it as an OMR region. You also see that **Agreement** has been added to the tree view.

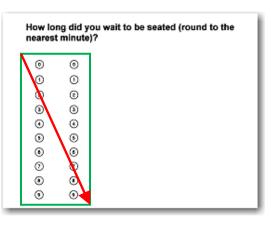
To define Wait Time as an OMR region

The Wait Time region needs to capture the two digits as one piece of information (e.g. 30 minutes). We will employ a Grid OMR region to define the bubbles on the form. A Grid OMR region outputs a single piece of data regardless of the number of rows and columns included in the region. This type of region is used for items such as dates, ID numbers, social security numbers, etc.

The steps involved to create a Grid region are the same as you used to create the OMR region we

have already created. However, the specific properties of the region change to reflect the way the region is formatted on the form and the way we want the software to report the data.

- 1. Highlight the **Agreement** node in the tree view, if not already highlighted.
- Click the **OMR** toolbar button to insert an OMR region, and then draw the OMR region box around the entire group of bubbles.
- After positioning the box, release the mouse button, and the Properties - OMR Region window appears.



- 4. In **Region Definition** area, enter **Wait Time** in the **Region name** box.
- 5. Select **Grid** for the **OMR type**. A grid region allows the respondent to choose several response bubbles to make up one single response (a time in minutes, in this case).
- 6. Select **Numeric** for the **Data type**. We will be capturing a two-digit number.
- 7. In the **Region Layout** area, select **Column** for the **Region orientation**. Each column in this region represents one digit of the wait time.
- 8. In the **Columns in region** box, ensure that **2** was entered for the **Columns in the region** and 10 in the **Rows in region** box.
- Enter the appropriate Labels in Response Choices. For the Labels area, click the down arrow for Possible label scales and choose the scale 0 to 9 from the list of choices. This range represents the response choices for bubbles in all five columns, moving from top to bottom. The

Properties - OMR Region [Wait Time (1)]				
OMR Region Definition	OMR Region	Definition and Det	ail		
Advanced Region Properties	Region Defini Region name:			Region Layout	Column 👻
Question Properties	OMR type:	Grid	- 0	Columns in the region:	2
Tracking	Data type:	Numeric	-	Rows in the region:	10 🔺
Database Lookup				Read right-to-left	
	Response Cho Possible label Saye Curre	<u>s</u> cales:	Labels 0 1 2 3 4 5		
	Define Eor	mat (Grid Type Only) —			<u>R</u> eset
	✓ Include regi	on in read operation		<u>O</u> K	<u>C</u> ancel

numbers will fill the **Labels** grid automatically. The Labels represent the actual data that will be returned from the processed forms when filled in by the respondent, and the Grid region will return all selections to make a two-digit number.

10. Click the **OK** button to return to the main Template Editor window.

You now see a green box around the **Wait Time** region in the form area, identifying it as an OMR region. You will also see that **Wait Time** has been added to the tree view.

To define Wait Time Expectation as an OMR region

The **Wait Time Expectation** region is a third OMR region designed to output the whether the respondent thought the wait time for a table matched his/her expectations.

- 1. Highlight **Wait Time** by clicking its node in the tree view, if it is not already highlighted.
- Select the Region menu, click Insert and then click OMR Region After Selected Region, or click the OMR toolbar button. Alternatively, select the Insert OMR region link in the Task Pane.

The cursor changes to a crosshair.

- 3. Place the cursor just to the left of the bubble for **About what I expected**, and then press and hold the left mouse button while dragging the rectangle to the bottom right corner, capturing all three bubbles in the region.
- 4. In the **Region Definition** area, enter **Wait Time Expectation** in the box titled **Region name**.
- 5. For the **OMR type**, select **Multiple**.
- 6. For the **Data type**, select **Textual**. This region contains textual responses, so textual is the correct data type.

The waiting time was:



About what I expected A little longer than I expected Much longer than I expected

- 7. In the **Region Layout** area to the right, select **Column** for **Region orientation**. For this question, the question's answer choices are listed in a column.
 Properties OMR Region (Wait Time (2))
 OMR Region Definition and Detail
- 8. For **Columns in the region**, ensure **1** was entered and for **Rows in the region** ensure **3** was entered.
- 9. For the Labels area, type the number for each length of stay on each of the rows: About what I expected, A little longer than I expected, Much longer than I expected, one per line. This label range represents the response choice for each bubble, moving from left to right. Again you will notice that as you type the Labels, numbers will automatically fill the Values column in the grid.

	Region Defin	ition		Region Layout	
Advanced Region Properties	Region name	Wait Time		Region orientation	n: Column
Question Properties	OMR type:	Multiple	- 0	Columns in the re	gion: 1
Tracking	Data type:	Textual	-	<u>R</u> ows in the region	
Database Lookup				Read right-to-	ieft
	Response Ch	oices			
	Possible labe	l <u>s</u> cales:			
		•	Labels		Values
	Sa <u>v</u> e Curr	ent Scale Edit	About w	hat I expected	1
			A little lo	onger than I expected	2
			Much lo	nger than I expected	3
	NA label:				
	None				
	Define Eo	rmat (Grid Type Only) —			
					Reset

10. Click the **OK** button to return to the main Template Editor window.

You now see a green box around the **Wait Time Expectation** region in the form area, identifying it as an OMR region. You will also see that **Wait Time Expectation** has been added to the tree view.

To define the ranking questions as an OMR region

There are four questions on the form that ask respondents to rank items in the order of importance to them. For this type of question, we can use a Rank OMR region. The Rank OMR region type allows respondents to enter one ranking for each question. If they choose more than one ranking per question, or use the same rank more than once, Remark Office OMR marks it as an exception with the word DUP when processing the filled-in forms.

- 1. Highlight the **Wait Time Expectation** node on the left side of your screen, if it is not already highlighted.
- Select the Region menu, click Insert and then click OMR Region After Selected Page, or click the OMR toolbar button. Alternatively, select the Draw Regions link in the Task Pane and then select Insert OMR Region.

The mouse changes to a crosshair.

3. Place the cursor just to the left of the first bubble for **Prompt Seating**, and then press and hold the left mouse button while dragging the rectangle to the bottom right corner, capturing all four rows and four columns of bubbles in the region.

Prompt seating	0	•	۲	0
			U.S.	۲
Friendly, prompt service	0	O	3	۲
Food quality	0	0	3	۲
Price/value	0	٢	3	۲

4. In the **Region Definition** area, enter **Importance Ranking** in the box titled **Region** name.

- 5. For the **OMR type**, select **Rank**. This OMR region type will allow respondents to enter one ranking per question within the region.
- 6. For the **Data type**, select **Textual**. This region contains textual responses, so textual is the correct data type.
- 7. In the **Region Layout** area to the right, select **Column** for **Region orientation**. For this question, each column represents our rankings. We want one entry for each ranking.
- 8. For **Columns in the region**, ensure **4** was entered and for **Rows in the region** ensure **4** was entered.
- 9. For the Labels area, type the label for each possible response in each of the rows (without any punctuation, which can be problematic when saving to certain file types): Prompt seating, Friendly prompt service, Food quality, Price & value, one per line. This label range represents the questions the respondent will be ranking, moving from top to bottom. Again you will notice that as you type the Labels, numbers will automatically fill the Values column in the grid (these numbers are not part of the rankings; the region name will determine the rankings 1-4).

OMR Region Definition	OMR Region	Definition and Deta	il			
Advanced Region Properties	Region Defini			Region Layout		
	Region name:	Importance Ranking		Region orientatio	n: Row	Ŧ
Question Properties	OMR type:	Multiple	- 0	Columns in the re	gion:	4 🔺
	Data type:	Textual	*	Rows in the regio	in:	4
				Read bottom-	to-top	
	Response Cho	pices				
	Possible label					
		-	Labels		Values	
	Sa <u>v</u> e Curre	nt Scale Edit	Prompt s	eating	1	
			Friendly	prompt service	2	
			Food qui	ality	3	
			Price & va	alue	4	
	<u>N</u> A label:					
	None	*				-

10. Click the **OK** button to return to the main Template Editor window.

You now see a green box around the **Importance Ranking** region in the form area, identifying it as an OMR region. You will also see that **Importance Ranking** has been added to the tree view.

To define the Comment area as an Image region

Areas in which you expect your respondents to use handwriting can be captured by Remark Office OMR as Image regions. Image regions can take a snapshot of the handwriting and store it on your computer as an image file, allow you to hand enter the written information into your data set using image assisted data entry or allow you to code the comments after viewing them on-screen. You can run a Response Report in Remark Quick Stats to view the data entry or snapshot information from the Image region. We are capturing a snapshot of the handwriting.

- 1. Highlight the **Importance Ranking** node in the tree view, if not already highlighted, and then click the **Image** toolbar button to insert an **Image** region.
- 2. Once the cursor becomes a crosshair, place the cursor at the top left of the area where you would expect the respondent to enter their comments. Press and hold the left mouse button while dragging the rectangle to the bottom right corner of the area, making sure you have selected the entire allotted space, including the dashed line placeholder for the comments.

Do you have additional comments:



- 3. After positioning the box, release the mouse button and the **Properties Image Region** window appears, allowing you to define the region's properties.
- 4. Enter Comments in the Region name box.
- 5. Set the **Region type** to **Image clip**. This type captures each respondent's response as a small image file for storage on your computer. You can then run a report in Remark Quick Stats to review the comments.
- 6. At the bottom of the **Region Definition** area, mark the setting for **Attempt to detect the presence of handwriting in the region**. By using this feature, Remark Office OMR searches for handwriting in the Image region area during form processing. If writing is found, the image clip i s captured, and the path to the clipped image file is displayed in the data grid.
- In the Target folder box, click the ellipsis to choose the Images folder of your Remark Office OMR installation (e.g. My Documents\Remark Office OMR\Images). Whenever a comment is found, a small image file is captured in this folder.

Properties - Image Region [Comments]	and the second se	
Image Region Definition	Image Region Definition and Detail	
Advanced Region Properties	Region Definition	1
	Region name: Comments	
Question Properties	Region type: Image clip	
Tracking	Default <u>f</u> ill:	
Database Lookup	Auto increment fill galue (if applicable)	
	Apply auto increment across auto form ID templates Prompt me for the fill value at the start of a read session	
	Attempt to detect the presence of <u>h</u> andwriting in the region	
	_ Image Clip Options	
	Target folder: C:\Images Name Builder	
	Begin names with: Demo Tutorial Comments	
	Clip file type: TIF v Compression: Group 4 (highest) v	
	compression and compression and compression	
	Link Region to an Existing OMR Region	1
	O <u>M</u> R Region: ▼	
	Question: Answer:	
	Include region in read operation	1
		.
	<u>O</u> K <u>C</u> ancel	
P		

- 8. In the **Begin names with** box, type **Demo Tutorial Comments**. When the images are captured, the image names begin with the text "Demo Tutorial Comments" so that you know they belong to this form.
- 9. Set the **Clip file type** and **Compression** to the default settings of **TIF** and **Group 4**.
- 10. Click the **OK** button to return to the main Template Editor window.

You now see the new **Comments** Image region visible as a blue field on your form and that **Comments** is now listed in the tree view of your form template.

To define the Restaurant Chain as a Barcode region

The barcode in the bottom left corner of the form holds the name of the restaurant chain to which this survey applies. In this case, a management company could own several chains of restaurants, so the barcode will let us know which particular chain is being evaluated.

- 1. Highlight the **Comments** node in the tree view, if not already highlighted, and then click the **Barcode** toolbar button to insert a **Barcode** region.
- 2. Once the cursor becomes a crosshair, place the cursor at the top left of the area where the barcode begins. Press and hold the left mouse button while dragging the rectangle to the bottom right corner of the area, making sure you have selected the entire barcode, plus a little extra space, as barcodes can vary in length.



3. After positioning the box, release the mouse button and the **Properties – Barcode Region** window appears, allowing you to define the region's properties.

- 4. Enter **Restaurant** in the **Region name** box.
- 5. For **Barcode type**, choose **Code 39**. You may also click the Detect button to have the software try to detect the barcode type.
- 6. For **Barcode orientation**, choose the default entry of horizontal (barcodes can be placed horizontally or vertically on forms).
- 7. For **Data type**, choose the default setting of Textual. This barcode has restaurant names in it so textual data is appropriate.
- 8. This barcode does not have multiple items within it, so leave the checkbox for **Barcode Contains Multiple Items** deselected.
- 9. Click the **OK** button to return to the main Template Editor window.

Barcode Region Definition	Barcode Region D	efinition and Detail		
Advanced Region Properties	Region Definition			
	Region name:	Restaurant		
Question Properties	Barcode <u>type</u> :	Code 39	*	D <u>e</u> tect
Tracking	Barcode orientation:	Horizontal	*	
Database Lookup	Data type:	Textual	*	
	Barcode Contains	Multiple Items		
	Item delimiter:	manapic items	Ŧ	
	Number of items:		2	
	☑ Include region in ro			

You now see an orange box around the barcode in the image area, identifying it as a barcode region, and a new node in the tree view titled **Restaurant**.

To create the Restaurant Number OCR region

The final area of the form to recognize is the restaurant number. Each restaurant has its own unique identifier, which is typewritten onto the survey. We can use OCR, optical character recognition, to recognize machine printed text (not handwriting, which is called ICR, or intelligent character recognition).

- 1. Highlight the **Restaurant** node in the tree view, if not already highlighted, and then click the **OCR** toolbar button to insert an OCR region.
- 2. Once the cursor becomes a crosshair, place the cursor at the top left of the area where the restaurant number begins. Press and hold the left mouse button while dragging the rectangle to the bottom right corner of the area, making sure you have selected the entire allotted space. For OCR regions, it is good to extend the region how a little bit part the text so that you are allotted.



to extend the region box a little bit past the text so that you are sure to encapsulate any text within the area (the lengthy may vary).

3. After positioning the box, release the mouse button and the **Properties - OCR Region** window appears, allowing you to define the region's properties. This window allows you to provide pertinent information about the OCR region.

4. Type **Restaurant Number** in the **Region name** box. The Region name provides a brief

description of the region and will become the name for this column in your data set.

- 5. Set the **OCR type** to **Primary**. Primary OCR works well in most cases and is the default setting.
- 6. The following options should be set to their default settings:
 - **Data Type** is **Numeric**. We are collecting restaurant numbers, which are numeric. If we were to export our data once it is collected, the data type would be flagged as numeric in the output file.
 - Language is English, Middle.
 - **Text orientation** to **Left to Right**. The text on our form is oriented from left to right

OCR Image Pre-Process Options are all unchecked.

- 7. Do not mark the checkbox for **Region contains more than one word**. The restaurant numbers are all run together in sequence (e.g. 123).
- 8. Click the **OK** button to return to the main Template Editor window.

You now see a purple box around the text in the image area, identifying it as an OCR region, and a new node in the tree view titled **Restaurant Number**.

To save the tutorial form template

We have finished creating all of the regions in our form template and need to save the form template as a file we can use to process completed forms.

- Select the File menu and then click Save. Alternatively, select the Save link in the Task Pane. Make note of where you save the form template file (we suggest Documents\Remark Office OMR\Tutorials\Demo Tutorial 2).
- 2. In the **File name** box, type **Demo Tutorial 2** and then click the **Save** button (the. .omr extension will be added automatically for you).

Note: If someone has already completed the tutorial with this file name, you may modify the file name.

You have now created the Tutorial form template. Close the Template Editor by selecting the **File** menu and then clicking **Exit**. Alternatively, you may also simply click the X in the upper right hand corner of the **Template Editor** window.

Processing the Completed Restaurant Evaluations

Now that you have created the form template for the **Restaurant Evaluation** survey, you are ready to begin processing the completed forms using the supplied image files.

Properties - OCR Region [Restaurant No	umber]	
OCR Region Definition		inition and Detail
Advanced Region Properties	Region Definition - Region <u>n</u> ame:	Restaurant Number
Question Properties	OCR type:	Primary Deskew region image
Tracking	Data type:	Numeric Despeckle Region Image
Database Lookup	Language:	English, Middle
	Text orientation:	Left to Right Region contains more than one word
		Region contains multiple lines of text
		acter Set) of characters permitted in the text to be recognized. Recognition accuracy yu limiting the character set to only those characters that are expected.
	Numbers	py limiting the character set to only those characters that are expected.
	Lowercase text	
	Uppercase text	· · · · · · · · · · · · · · · · · · ·
	Include region in	read operation
		<u>O</u> K <u>C</u> ancel

To open the Restaurant Evaluation form template

- If not already running, start the Remark Office OMR Data Center (Start|Programs|Remark Office OMR Demo|Remark Office OMR Data Center). When the Data Center opens, it will display a blank spreadsheet-style data grid. The Data Center offers a Task Pane on the left containing the most commonly requested actions.
- 2. Select the **File** menu and then click **Open Form Template**. Alternatively, select the **Open Other Templates** link in the Task Pane. You must open a form template in order to process forms.
- Select the Demo Tutorial 2.omr file (the file you created in the previous section of this tutorial) and then click the Open button. Alternatively, we have provided a sample file in Documents\Remark Office OMR\Tutorials\Demo Tutorial 2\Remark Office OMR Demo Tutorial 2.omr.

When the Demo Tutorial form template opens, its name appears on the title bar at the top of the screen and you see the region names you specified as your column headers in the data grid. Each column in the grid corresponds with one variable or question in the form template, as the column headers indicate. The data grid fills row by row as your completed forms are processed. Each grid row contains information from one processed form regardless of the number of pages the form contains.

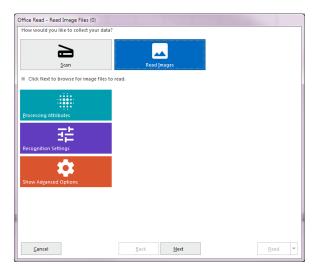
To read forms from image files

The Read window is used to process completed forms and produce data. The Read window has several steps to help customize the reading process. This tutorial will focus on the basic functions. As mentioned previously, we will be reading pre-scanned image files.

- Select the **Tools** menu and then click **Read**. Alternatively, select the **Read** link in the Task Pane.
- 2. The Office Read window appears.
- 3. Select the button for **Read Images**.
- 4. Click the **Next** button to continue.

The Image Selection window appears to enable you to view and select the images you want to process.

- Navigate to the **Tutorial 2** folder of your Remark Office OMR Demo installation (e.g. Documents\Remark Office OMR\Tutorials\Demo Tutorial 2).
- 6. Navigate to the Images for Processing folder.
- Select the file called Remark Office OMR Demo Tutorial 2 – Completed Restaurant Evaluations.tif by either double clicking it or selecting it and clicking the button for Add Selected, which will move the file into the Image List window on the right. This multipage TIF file contains 10 completed surveys.
- 8. Click the **Next** button to continue.



Office Read - Read Image Files (1)	
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	Add Selected
	Add <u>Science</u>
Image Files (*.pcx;*.tif;*.pdf;*.bmp;*.dcx;*.jpg;*.jpeg;*.png;*.tiff)	
Image List (In Read Order)	
Demo Tutorial - Completed Restaurant Evaluations.tif	
	Remoye All
v	Remove Selected

The **Review Exceptions** window appears. This window allows you to configure options for reviewing exception cases such as blank and multiple responses. We will not be using this feature in this tutorial.

- 9. If the **Enable Review Exceptions** button is marked, click it to deselect this option. We will not be reviewing exceptions at this time.
- 10. Click the **Read** button to begin reading image files.

As each image is processed, you see a row added to the data grid. Once all the forms are processed you are ready to review and clean the data.

Reviewing and Correcting the Data

After the forms are processed, 10 rows of data are displayed in the data grid. Each row represents the responses collected from one of the forms. You are now ready to inspect the data for missing or unrecognized responses in order to prepare for either analysis or export.

Remark Office OMR informs you of unrecognized or questionable responses by color-coding each appropriate data grid cell and including a short descriptive word describing the exception (e.g. BLANK). The software then assists you to correct exception cases or problems by allowing you to see what was entered on the actual form. The stored images for each processed form are available to show you respondents' answer choices.

For this tutorial, we are going to run **Review Exceptions**, which provides an automated way to search through the data for exceptions and then correct them.

To run Review Exceptions

- 1. Select the **Tools** menu and then click **Review Exceptions**. Alternatively, select the **Review Exceptions** link in the Task Pane.
- 2. Once you access Review Exceptions, use the task pane to select the exception cases you would like to review: Blank responses, Multiple Responses, Recognition Errors, Image Regions, Database Lookup Regions, Barcode Regions, OCR Regions, Repeated Rank Responses or Required Items. You can also choose whether to search by rows or columns in the data grid.
- 3. Click the **NEXT** button at the top of the data grid to start the review process.

The Data Center searches the data for the specified exception cases. When a selected exception case is found, it appears in the data header bar at the top of the data grid. The bar is color coded to match the exception type (e.g. yellow for a BLANK response). Use this window to make changes. You can use the drop-down list if applicable, or type a response. Note if there is a list of answer choices defined, as you begin typing, Remark Office OMR will attempt to auto-fill your answer based on your possible answer choices.

3. The first piece of flagged data is a blank response in row nine for the item called Selection. Press **Enter** or click the **NEXT** button to continue. If you look at the **Image Viewer**, you see that the respondent truly did leave this question blank. Therefore, no changes are necessary.



4. The next exception is a multiple response in row nine for the item called ImportanceRanking4.

Look at the Image Viewer to see the intended response. In this case, it looks like the respondent

changed his response from **Price & Value** to **Prompt Seating**. Select **Prompt Seating** from the drop-down list.

- 5. Press Enter or click the NEXT button to continue.
- 6. The next piece of flagged data is a multiple response in row ten for the item called **Selection**. It appears that the respondent changed his response from **Neither Agree or Disagree** by crossing out the original mark and filling in a second bubble. We will assume that **Agree** is the correct response. Select **Agree** from the drop-down list (or type "A" and watch Remark Office OMR auto-fill the response).
- 7. Press the **Enter** key or click the **NEXT** button. There are no more exception cases in the data.
- 8. When prompted, click Yes to save your changes.

Your data is now ready to be saved and analyzed. The demo version of Remark Office OMR does not allow data to be saved.

In the full version of the product, you can save your data to many file formats, including Microsoft SQL Server, Access and Excel, SPSS[®], CSV, Oracle and others. We will continue on to analysis of the data.

Analyzing the Restaurant Evaluation Data

Remark Office OMR provides statistical analysis functionality for tabulating data from your forms. The **Quick Survey** feature is one such facility and provides you with a choice of standard reports based on your data.

To tabulate the Restaurant Evaluation data

1. Select the **Tools** menu, then click **Analysis** and then click **Quick Survey**. Alternatively, click the **Analysis** tab and then select the **Quick Survey** link in the Task Pane.

The Remark Quick Stats window appears.

2. The **Condensed Item Analysis Report** should display automatically. If it does not, select it from the Item Analysis Reports link in the Task Pane on the left.

The **Condensed Item Analysis Report** shows several statistics for each question, such as Label, Total and Percent. Each table displays statistics for a separate question in the survey. This simple, straightforward report may be all that you need to communicate your survey's results.

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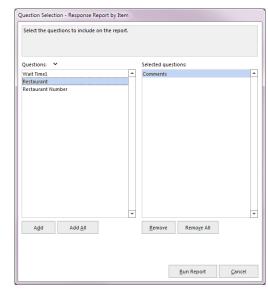
To run the Comparative Item Report

The Comparative Item Report is useful for breaking down data on specific questions on the form. The report shows you how specific subsets of your data responded to each question. For this tutorial, we can use the Restaurant Chain as the basis for the report.

Select up to three items on which to filtered by your selected items.	o base the rep	ort. Informatio	on is displayed for eac	h question,
Questions: 🗸		Selected qu	estions:	
Hot Selection Quality Tasty Wait Time1 Wait Time2 Importance Ranking1 Importance Ranking2 Importance Ranking3 Importance Ranking4 Comments Restaurant Number	×	Restaurant		
A <u>d</u> d Add <u>A</u> ll		<u>R</u> emove	Remo <u>v</u> e All	
Running this report may r		NING ant system res	sources and processo	time!
			Run Report	Cancel

- 1. In the **Task Pane**, select the **Survey and Item Statistics** link, and then the **Comparative Item** link in the list.
- The Question Selection Comparative Item Report window appears. Use this window to select up to three items on which to base the report. For this tutorial, select Restaurant and then click the Add button to move it to the Selected questions window (you can also double click Restaurant to move it to the Selected questions window).
- 3. Click the Run Report button to display the report.

When the report displays, you see each question on the form listed, and then how each restaurant faired. The number of respondents per restaurant and means for each question are listed on a per restaurant basis.

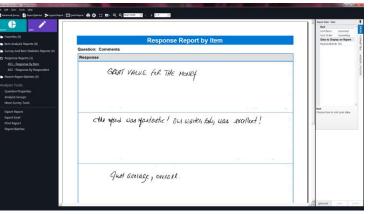


To run the Response Report by Item Report

The Response Report by Item Report can be used to display the open-ended comments on the form. We captured each respondent's response using an Image Clip Image region. This report displays the image clips that were captured any time a respondent wrote in the comments box on the form.

- 1. In the **Task Pane**, select the Response Reports link, and then the **Respondent by Item** link in the list.
- The Question Selection Response Report window appears. Use this window to select the items on which to base the report. For this tutorial, select Comments and then click the Add button to move it to the Selected questions window (you can also double click Comments to move it to the Selected questions window).
- 3. Click the **Run Report** button to display the report.

When the report displays, you see any comments that were captured as image clips,



in the respondent's handwriting. You can scroll through the pages using the navigation tools in the toolbar.

There are other reports available that we encourage you to view by clicking their links in the Task Pane. Note that you can experiment with the report options in the **Report Style** pane. In the full version of the software, you can export the reports to several formats, including PDF, Excel, RTF and TIF. In addition, there is a Report Batch option that allows you to automatically filter the data on up to three items in your data set and then automatically generate, print and/or export the resulting reports.

Tutorial Summary

This tutorial illustrated the basics of using the software, including:

- Creating a form template
 - OMR regions
 - o Image regions
 - o Barcode regions
 - OCR regions
- Processing forms
- Using Review Exceptions to clean data
- Tabulating surveys with Quick Survey
 - o Condensed Item Analysis Report
 - Comparative Item Report
 - Response Report by Item Report

You have completed the Remark Office OMR tutorial. We hope that this tutorial has given you an overview of how the software works. The full version of Remark Office OMR has many more features to help you grade all different kinds of tests. Please note that the demo you are using can also be used with your own forms. Please visit our <u>website</u> for more product information or to purchase: www.remarkosoftware.com. For a full functioning trial of the software, please contact our <u>sales</u> department. We are always happy to look at the forms you want to process and answering any questions you may have.

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