



TestAnyTime

Image Form Design Guide

English Version

Image Form Design Guide

Notes & Notices

Thank you for choosing TestAnyTime. This form design guide will teach you the basics and have you up & running in a few minutes.



NOTE: Indicates important information that helps you make better use of your computer.



Keyword: Highlighted area that displays an important keyword that will be used frequently.



TIPS: Indicates a quicker or more efficient method of using a software feature

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1. Overview

Creating imaging forms is the first step to a successful experience and ensuring a high recognition rate with TestAnyTime. When a form is created well, many potential problems can be avoided. TestAnyTime works with plain paper marks, no special marks or printing are needed, like the ones used in traditional OMR forms. Respondents can use either pen or pencil to complete their forms.

This guide will show you how to create and design forms that are compatible with TestAnyTime software.



Note: Although TestAnyTime allows a great deal of flexibility in form design, proper form design will be crucial in achieving high accuracy and recognition rate.

2. Application for Form Design

TestAnyTime software is not nor contains a form designer. Forms use for TestAnyTime can be created simply by using software in programs that you are most comfortable with; such as a word processor, survey design package, design applications etc. e.g.:

- Microsoft Word (most commonly used)
- Google Docs
- Adobe Illustrator
- Adobe Photoshop
- Corel Draw

Forms will contain marks (bubbles, ovals, rectangles etc.) where respondents will darken to fill in a choice or answer. Forms can contain multiple pages and can be printed on both sides of the paper. The choice of software you use to create your form is entirely up to you. You may base your decision on what you feel comfortable in using, your budget and your project requirements. However, whatever your choice may be, the following form design guidelines will apply. We suggest that you read through them carefully before undertaking your own form design.



TIP: You may wish to refer to our DataCap website for up to date information about our form design services and download our sample forms to use:

<http://www.datacap.hk/sample>



Keyword: 'Mark'

Mark is hollow shape on a form where respondents darken in the area to indicate their answer or choice. Marks are usually ovals, rectangles or bubbles.

3. Form Auto-Alignment

TestAnyTime software has a built-in auto alignment feature for the processing the forms. This auto-alignment function minimizes any skews or movements during printing or photocopying of the forms, which can lead to data not be recognized.

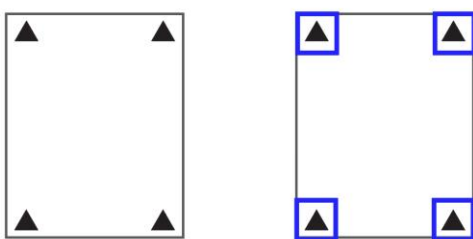
To utilize this feature in your form design you will need to assign a solid (filled) black color shape to your form's 4 corners. The shape used can be triangles, squares, ovals etc:



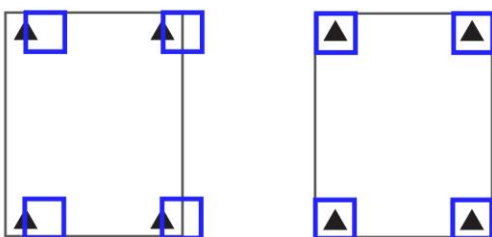
For the size of these shapes:



These 4 corner shapes are called the 'Registration' marks or anchor marks. These will be captured by TestAnyTime as the forms are scanned and if any movements or skews are detected, the software will auto align the image of the forms accordingly to the template setting, thus improving accuracy and recognition rate. Below is a diagram that explains how the feature works in a bit more detail:



Define Registration Zones



Auto Alignment

4. Mark Shapes for OMR (Optical Mark Recognition)

Forms need to be created so that TestAnyTime can capture and recognize the data 'marked' on them. TestAnyTime software recognizes the data as a 'mark' made in OMR shapes which can be bubbles, circles, squares, rectangles etc. These 'marks' are darkened by respondents on the form as their intended choice or answer using a pencil or a pen.

The choice of shapes is another consideration that you will need to make when creating your own forms. Smaller shapes (such as an oval or circle) usually mean respondents fill in more completely and neatly, however it may also lead to accidental marks inside being wrongly captured as an answer. Our sample forms from our website (<http://www.datacap.hk/sample>) use rectangles as the shape for marks to be filled as it is easier to distinguish stray marks and intended answers.

It is recommended that the shapes you use are hollow (i.e. no numbers or text inside the shape):



In addition it is also recommended the shapes you choose contain unbroken (no gaps) border when printed and scanned. The border thickness should not be more than 0.5mm:



Note: Any shapes that may contain numbers or text inside can affect the recognition and capture of data (e.g. leading to OMR to be recognized)



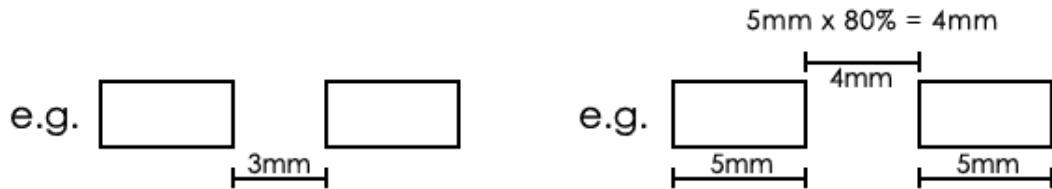
TIP: You may use our DataCap fonts which are installed along with the TestAnyTime software or you can download the font pack from our website:

<http://www.datacap.hk/sample>

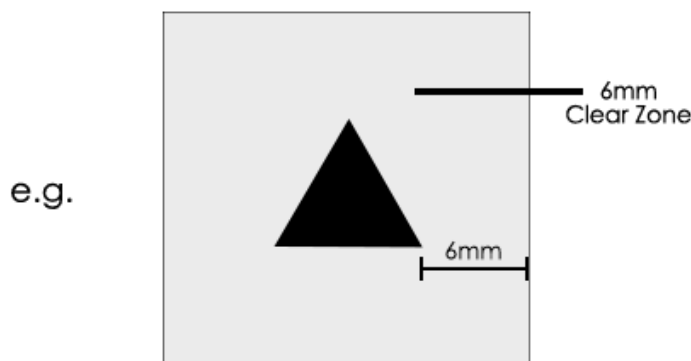
5. Mark Shape Sizes & Spacing

Reserving enough white spacing between mark shapes is an important part of good form design.

Allow at least 3mm spacing between other mark shapes, lines, barcodes and text:



For form alignment (registration marks) it is recommended that you leave at least 6mm spacing between the paper's edge, other mark shapes, lines, barcodes and text.



The white space around your marks act as a buffer area for TestAnyTime software to accommodate any scanner skews, form offset, and poor marking from your respondents. The greater white space on the form, the better TestAnyTime is able to allow differences form to form. In contrary, the more crowded or packed a form (the less white space there is), the more difficult it is for TestAnyTime to compensate for any form differences.

Example of good mark spacing:

	A	B	C	D
1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

6. Grouping Questions

It is recommended that questions of the same type are grouped or placed together on the form, this will minimize your efforts when you move on to setting up your template on the software. For example, questions on true or false should be placed in one area and multiple choice questions in another. We suggest that all mark shapes you place on the form that will be defined in a single OMR area is to be aligned horizontally or vertically.

In addition where possible to allow enough spacing for you to highlight groups of questions together later on-screen during the template process.



Tip: Try to minimize the use of text between shapes as it will reduce your workload instead of having to highlight/select these mark zones individually to form single questions, e.g.:

Layout 1 (Normal):

Q10. What subjects are you taking?

- English Chinese French Spanish

Layout 2 (Better):

Q10. What subjects are you taking?

- English
- Chinese
- French
- Spanish

7. Shading Divides

TestAnyTime works well with marks printed in black ink on plain white paper without any shading. Although we do not suggest the use of shading in areas containing marks, you may create shading that covers the questions but leaving areas that contain marks to be white e.g.:

	Excellent	Good	Fair	Poor
Question 1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Question 2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Question 3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Question 4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

8. Form Margins

Space for margins along edge of the form is crucial. We suggest allowing a minimum of no less than ½ inch (approx. 1.27cm) margin space around the form. This space for the margin allows for some shifting in forms without losing marks or registration corners off the edge.



Note: The smaller the margin space on the form, the less room you have for inconsistencies from form to form.

9. Barcodes

TestAnyTime reads many different barcode formats. Barcodes can be used to capture a range of information, including but not limited to, names, ID numbers, class numbers, student ID and other demographic information. TestAnyTime software supports the following barcode formats:

1D Barcodes	2D Barcodes	Post Barcodes
<ul style="list-style-type: none">• Code 11• Code 39• Code 39 Extended• Code 93• Code 128• 2of5 Interleaved• Codabar• Patch Code• EAN 8• EAN 13• UPC A• UPC E• Add 2• Add 5	<ul style="list-style-type: none">• PDF417• Data Matrix• QR Code• Micro QR Code	<ul style="list-style-type: none">• PotNet• Planet• RM4SCC• Australia Post• IntelligentMail

Barcodes can be incorporate with one or more pieces of data. When using multiple pieces of data within a barcode, you will have to separate the data with some character (called a delimiter), e.g. such as a space, comma or tab.

In order for barcodes to be recognized successfully with TestAnyTime, follow the guidelines below:

- Barcodes should be at least 48pt in terms of size
- Barcodes should be placed either horizontally or vertically
- Keep barcodes away from any marks, texts or lines



Note: For Code 39 barcode please ensure that a star or asterisk is placed at the beginning and end of the barcode. Without these asterisks, TestAnyTime will not be able to read the barcode.

Example: To set a barcode for '987654', you should type the *987654* to convert the sequence to Code 39 barcode font.

We suggest when designing any forms with barcodes it is best to print a few forms out to do a test and see if it can be recognized with TestAnyTime before printing and sending the forms out.

10. Paper Type

TestAnyTime supports any paper size or thickness supported by your scanner. Please refer to your scanner's user guide and specification for further information. For the type of paper we suggest that you use white paper for the best recognition. You may also consider using colored paper (light, soft/pastel colours usually work well). However we do recommend whatever paper you choose to test the recognition first before printing large quantities of your form.



Tip: When testing colour paper, we recommend trying out a few copies through your scanner and TestAnyTime. The target is to have the form's scanned image to consist of a white background with black text. If you notice a lot of black specks or pigments in the background, your choice of colour paper maybe too dark.

11. Form Instructions

You may want to add some instructions onto you form to guide and illustrate to respondents how to fill in the marks correctly opposed to marks that are wrong.

Example:

Form Instructions

Please fill in the marks completely. Wrong marks should be completely erased.

Correct: 

Wrong:   

12. Form Duplication

There are a number of ways to reproduce forms in a several ways:

- Laser Printer
- High Quality Photocopier
- Professional Printer

It is important to note that if form duplication is done correctly, you can reduce form processing errors while improving quality and consistency. We recommend that when reproducing forms, it is best to use the same source (i.e. from a file or same form copy).

For photocopying forms it is important to remember that your overall form design and the paper placement in the photocopier are the restricting factors on how large your margins must be to reduce errors. If forms have inadequate spacing, they have low tolerance to skews and offset.

When photocopying forms we suggest placing the form carefully on the copier's glass pane tends to reproduce better quality forms than using a document feeder (as this can increase the chance of skews, as it enters the machine). In addition it is important to test the photocopied forms (in a batch) by creating a template in our software to see if data and quality capture is what you expect. Furthermore we recommend that once you feel that the data and quality capture is acceptable, that you photocopy all the forms you need in one batch. This removes the need for making photocopies of photocopies which can lead to form inconsistencies.



Note: It is recommended that you maintain as much consistency and single source reproduction of forms as possible. However if copies are made in several locations (e.g. different offices), it is best to have one of the copies to be sent back to where the forms will be processed, in order to adjust / align the core template with any forms that may have shifted significantly.



Tip: Regardless of what application you use to create your form, it is recommended that the file you use to print is saved in a PDF format. PDF format retains the original formatting, which ensures if other people print the same form, the same layout should be consistent. If you used special fonts, remember to embed them into the PDF file so that others can see the same fonts, when it's opened.

13. Form Testing

The best way to check if you have created a good form, scannable form is to test it. We suggest that you should always test forms you plan to use with TestAnyTime before printing and distributing large quantities. It is much easier to spot and solve problems before the forms are printed and distributed.

To test the forms, create a template in TestAnyTime. Then fill out a few forms that you have reproduced from your form design file. You should fill out some of the forms exactly how a respondent may fill it out (e.g. not all perfect). Scanned the forms and check the accuracy of the data capture, to see if they are what you expect.



Note: Remember to use the same scanner settings for when you create the template and when you scanned the forms that are filled in.


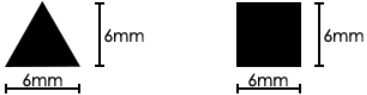
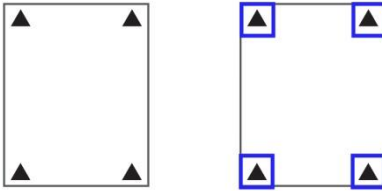
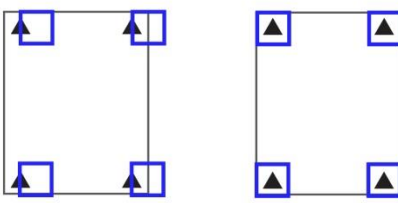






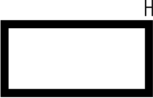
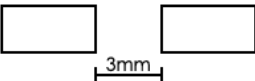
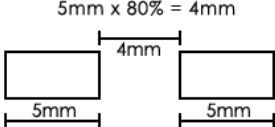
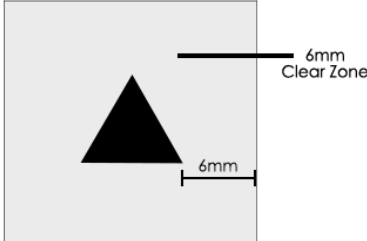
Tip: We suggest using 300dpi when you scanned the forms, to get the best quality images for recognition.

14. Form Review Service

We will be happy to review any forms you have created to use with TestAnyTime. You can contact us via phone or email (see 16. Contact Us) to our technical support team and we will check your forms for any known problems. We suggest that you check your forms with us before printing and distributing.

15. Form Design Summary

	Topic	Detail
1	Form Design Application	<p>Create your forms in the software you are most comfortable with:</p> <ul style="list-style-type: none"> • Microsoft Word • Google Docs • Adobe Illustrator • Adobe Photoshop • Corel Draw <p>When using word processing to create your form, try using tables to align your marks easily.</p>
2	Form Auto Alignment	<p>To ensure any skews or offsets that may happen during printing, photocopying and scanning, add a solid filled black shape to each corner of your form design:</p> <p>e.g. </p> <p>These solid marks located in the 4 corners are referred to as 'Registration Marks'. Their size should be:</p> <p>e.g. </p> <p>TestAnyTime has an auto alignment feature that can compensate for skews and offsets, thus improving your accuracy and recognition rate of your forms:</p> <div style="text-align: center;">  <p>Define Registration Zones</p>  <p>Auto Alignment</p> </div>

3	Mark Shapes For OMR	<p>Marks can be any hallow shape:</p> <p>e.g.    </p> <p>e.g.  Border Thickness Max: 0.5mm</p> <p>Try to use mark shapes that you feel your respondents will fill in completely with the least amount of effort. Traditional shapes like rectangle or ovals tend to be filled in more accurately and completely, leading to higher recognition results.</p>																									
4	Mark Shapes Sizes & Spacing	<p>Marks should follow these size and spacing guidelines:</p> <p>e.g.  e.g. </p> <p>Registration Marks should follow these size and spacing guidelines:</p> <p>e.g. </p>																									
5	Grouping Questions	<p>Try to group similar questions together (e.g. yes or no questions, all multiple questions). With grouping similar questions together will speed up your template setup process. Remember that marks need to be horizontally and vertically aligned to group easily.</p>																									
6	Shading Divides	<p>You may create light shading that cover the questions but leaving areas that contain marks to be white e.g.:</p> <table border="1" data-bbox="676 1823 1497 2072"> <thead> <tr> <th></th> <th>Excellent</th> <th>Good</th> <th>Fair</th> <th>Poor</th> </tr> </thead> <tbody> <tr> <td>Question 1</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>Question 2</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>Question 3</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>Question 4</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> </tbody> </table>		Excellent	Good	Fair	Poor	Question 1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Question 2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Question 3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Question 4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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7	Form Margins	We suggest allowing a minimum of no less than ½ inch (approx. 1.27cm) margin space around the form. This space for the margin allows for some shifting in forms without losing marks or registration corners off the edge.
8	Barcodes	<p>TestAnyTime supports (see full list '9 Barcodes'):</p> <ul style="list-style-type: none"> • 1D Barcodes • 2D Barcodes • Post Barcodes <p>Barcodes can be either horizontal or vertical. We suggest that you test if the barcode can be read by TestAnyTime before printing and distributing your forms. If you use CODE 39 Barcode please note that you will have to put astericks at the beginning and end of the barcode you want to use e.g.: '123456' should be typed as '*123456*'</p>
9	Paper	TestAnyTime supports any paper size or thickness supported by your scanner. Please refer to your scanner's user guide and specification for further information. For the type of paper we suggest that you use white paper for the best recognition. You may also consider using colored paper (light, soft/pastel colours usually work well). However we do recommend whatever paper you choose to test the recognition first before printing large quantities of your form.
10	Form Instruction	You may want to add some instructions onto you form to guide and illustrate to respondents how to fill in the marks correctly opposed to marks that are wrong.
11	Form Duplication	When duplicating forms, we suggest that you try to duplicate all the forms you need at one time, especially when photocopying the forms. Photocopying forms tend to shift slightly.
12	Form Testing	We recommend that before you print and distribute any of your forms, it is best to create a template and scan the forms as testing. You will be able to spot and solve issues with the form before they are printed and distributed. We suggest printing a small batch to scan to see if the data captured is as expected.

16. Contact Us

For technical support and further assistance with this TestAnyTime, please contact us below:

<u>Office Hours:</u>	
Monday to Friday:	09:00 A.M. – 06:00 P.M.
Saturday:	09:00 A.M. – 01:00 P.M.

<u>Contact Details:</u>	
Tel:	(+852) 2121 0868
Fax:	(+852) 2121 0735
Email:	enquiry@datacap.com.hk

For more information please visit: <http://www.datacap.hk>

For 'Sample Forms' please visit: <http://www.datacap.hk/sample>



Datacap Computer Solutions Limited

“data collection made easy”