



## Getting Started

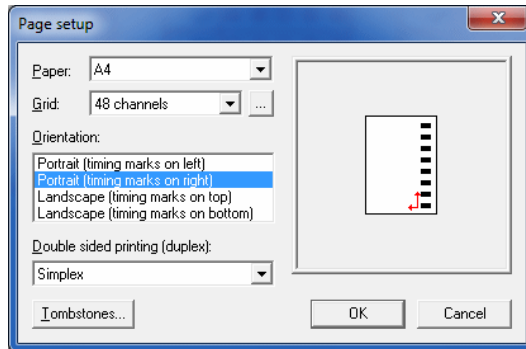
[The Design Workspace](#)  
[Design Workspace Setup](#)  
[Scan from Image Forms](#)  
[Response Grid](#)  
[Changing Timing Mark Positions](#)  
[Manual Timing Marks](#)  
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## Beginner's Guide

This guide is an introduction to setting up a FoD-OMR form, with different OMR zones (Matrix and Random, single choice and summation), other objects together with how to arrange these objects on the form.

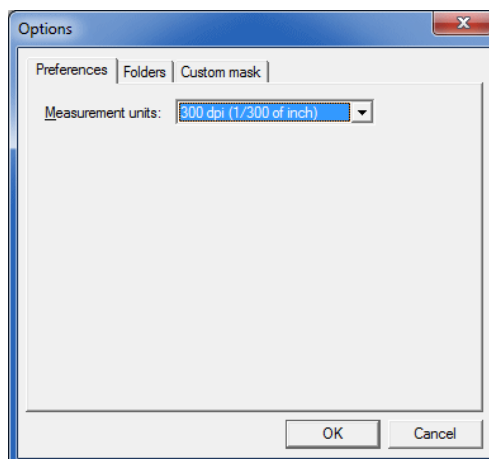
### Page Setup

First step is to set up the page in **File > Page Setup**. Set Paper to A4 or Letter and Grid to 48 channels. If you have a 40 channel scanner be prepared to adjust position of channels down to fit.




Save the form name it "Beginner's Guide" or another appropriate name.

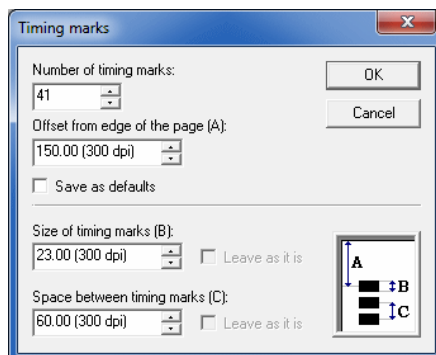
In **Tools > Preferences** set the **Measurement units** to **300 dpi (1/300 of inch)**. This allows for both 48 and 40 channel scanners without decimals (channel spacing is 50/300 for 48 channel, or 60/300 for 40 channel, other items adjust to fractions of 48 and 40 channel measurements).



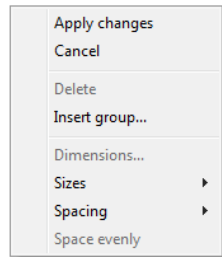
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### Timing Lines

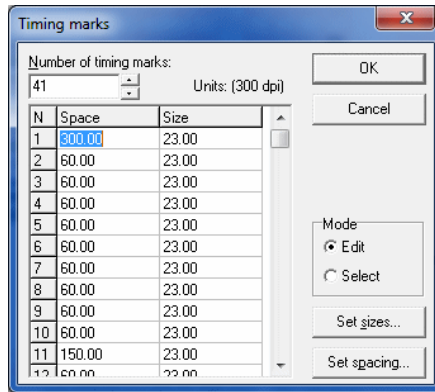
To define the timing lines select Timing Lines  in the Draw toolbar. In the dialog box, set **Number of timing marks** to **41**.



The Timing Marks appear on the right side of the form in red. Right-click anywhere on the form and click **Apply changes**.



You can now modify the spacing of the timing marks by right-clicking the timing marks and select **Properties**. In the dialog box you can change the space between the timing marks as well as their size.




Change the spacing to create one group of 10, five groups of 5, one of 4 and the last 2 together. Set the spacing evenly between the groups.

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### Student

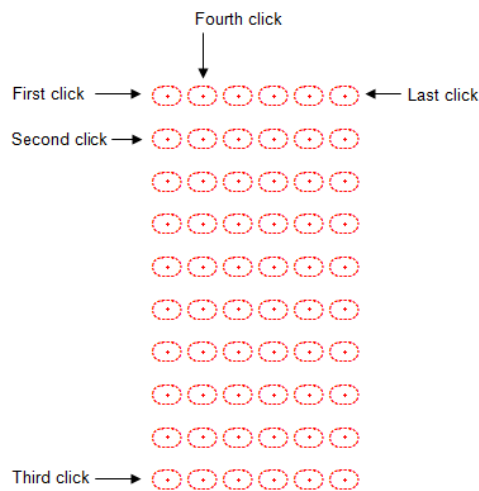
Matrix Zones for responses are defined by a series of mouse clicks. You define start point (1), then spacing between choices (2), number of choices (3), spacing and orientation between elements (4), and finally number of elements (5).

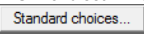
To set up a student number of six digits:

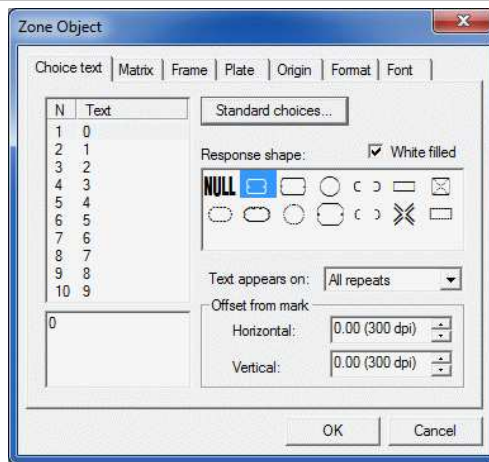
1. Click the Matrix Zone  button. The mouse pointer changes to a cross-hair.
2. Select where to "click" to start the zone. You can see Row and Column in the **Status Bar** (bottom of the window).

Channel:8 Row:1 left:1992.50 top:200.50 (300 dpi) No selection

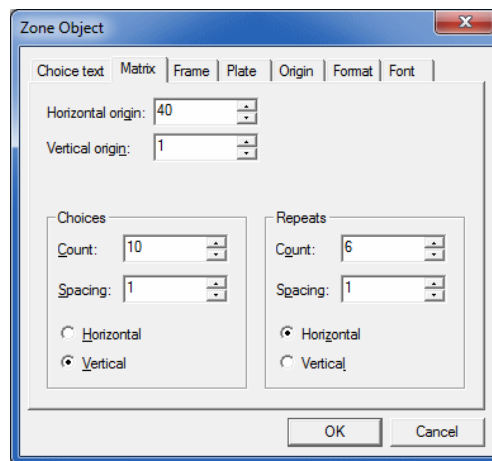
3. Click the *second choice* of the *first element* to define the element's orientation (along columns or rows) and the spacing between choices.
4. Click the *last choice* of the *first element* to define the number of choices.
5. Click the *first choice* of the *second element* to define the spacing between elements.
6. Click the *first choice* of the *last element* to complete the zone.



- Open the properties of the zone, either by double clicking the zone, or by right clicking and selecting **Properties**.
- From the **Response shape** area, select the shape to the right of NULL and set **White filled**.
- There are standard text choices to choose from, accessed from . Choose **Numbers (from 0)**.

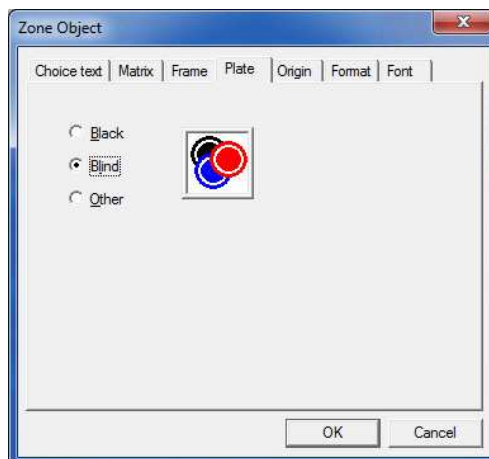


- In the **Matrix** tab, check the **Horizontal origin** is **40** and **Vertical origin** is **1**, change them if different.

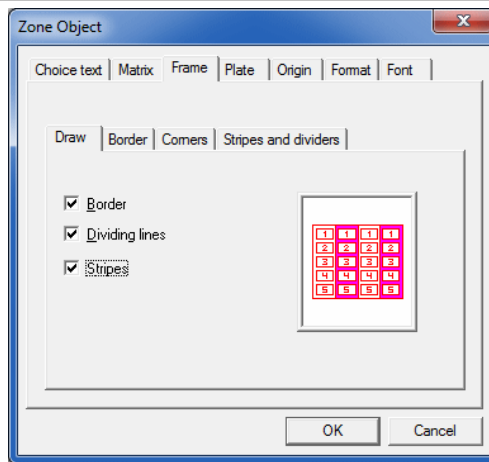


Jump to the **Plate** tab to change the color of the response text. FoD OMR recognizes only "three colors": **Black**, **Blind** (shown as Red) and **Other** (shown as Blue). [More information on blind and other colors is available in the manual.](#)

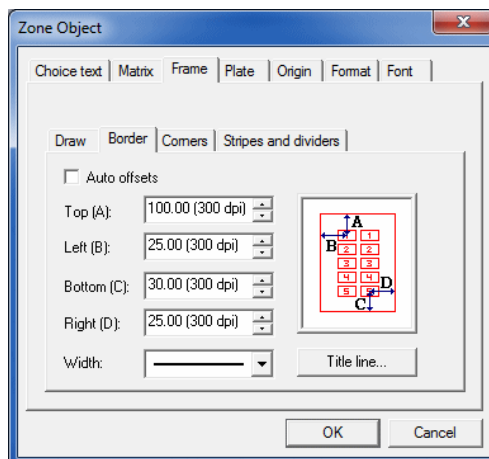
- Set the **Plate** to **Blind**.



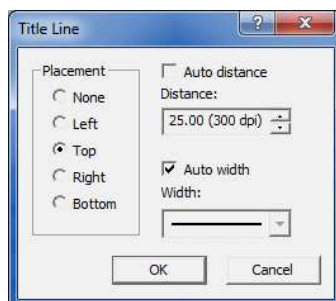
- On the **Frame** tab mark all three choices. This tab frames the zone with borders, internal lines and shading.



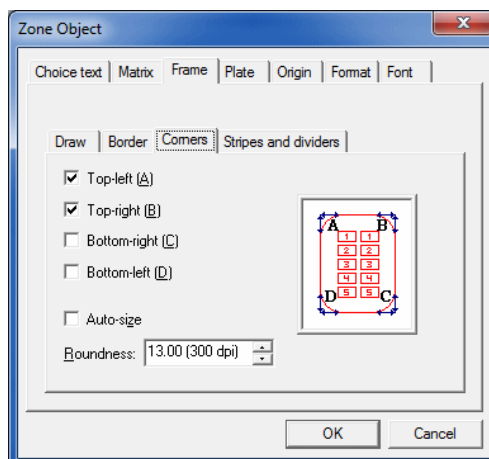
- On the **Border** tab, untick **Auto offsets** and change the settings to those shown below. **Width** should be increased to the second thinnest option.



- In the Title Line **Title line...** dialog box you create the line dividing the Title space from the choices. Set the **Placement** to **Top**, untick **Auto distance** and set to **25**. **Width** should be increased to the second thinnest option.



- On the **Corners** tab, select **Top-left (A)** and **Top-right (B)**. Untick **Auto-size** and set the **Roundness** to **13**.



- Finally set the stripes that divides the elements for visual clarity. These should be **Vertical** and a light shade (via the Slider - move to the left).

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Make, then delete each new Test field until you have used all methods please.

- **Copy** and **Paste** the Student zone. The zone is placed on top of the already existing zone.
- Open the **Properties** of the zone and in the **Matrix** tab change the **Horizontal origin** to **34**, and set **Repeats, Count** to **4**.

**Zone Object**

Choice text | **Matrix** | Frame | Plate | Origin | Format | Font

Horizontal origin: 34

Vertical origin: 1

Choices

Count: 10

Spacing: 1

☐ Horizontal

☒ Vertical

Repeats

Count: 4

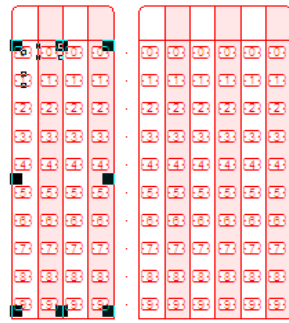
Spacing: 1

☒ Horizontal

☐ Vertical

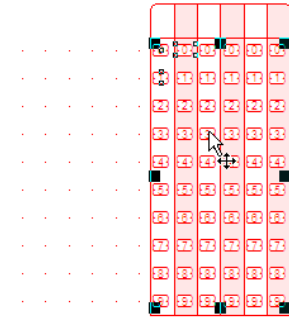
OK Cancel

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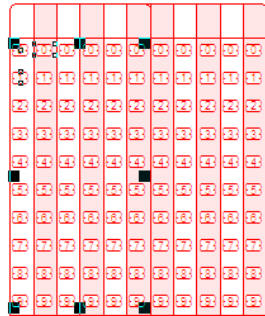
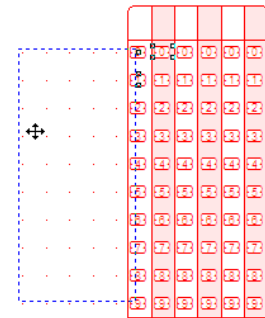


Copy, Paste, Drag and Resize:

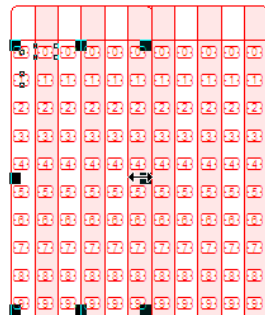
- **Copy** and **Paste** the Student field. The field is placed on top of the already existing field.

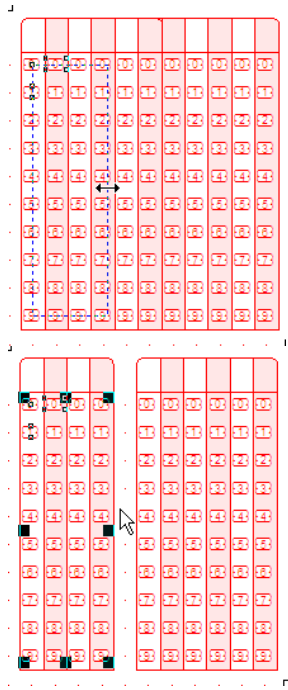


- Drag the zone to the left until only one repeat overlaps and let go of the mouse.



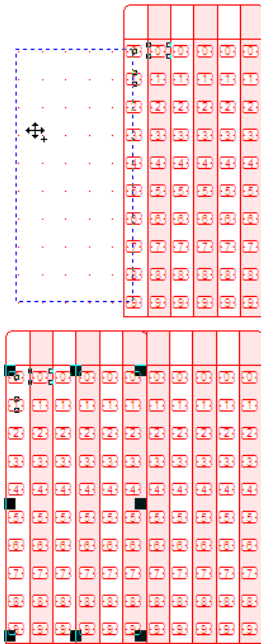
- Select the middle black handle on the right side and resize the zone to 4 repeats.





Use Ctrl+Drag to make the copy, then Resize:

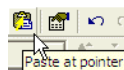
- Hold Ctrl while dragging the zone to the left. This creates a copy.



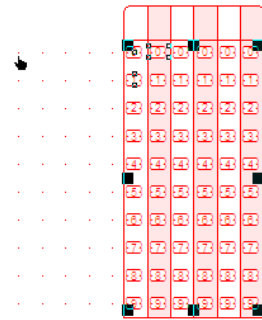
- Resize the zone.

Copy and use Paste At  to make the copy, then Resize:

- Copy the zone.
- Select the Paste At button in the toolbar.

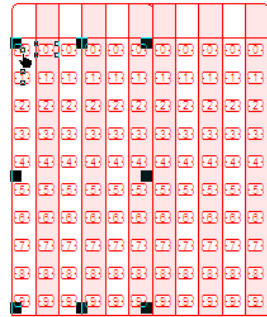


- The mouse pointer changes to a hand.

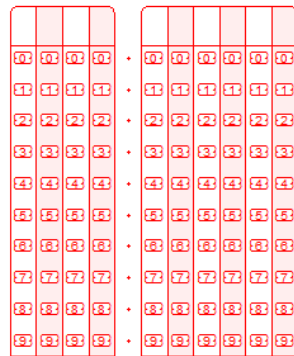


- You can check the Row and Column in the Status bar to ensure the position is correct.

Channel:14 Row:1 left:1692.00 top:193.25 (300 dpi) left:1694.00 top:200.00 width:1844.00 height:740.00 (300 dpi)




- Resize the zone.

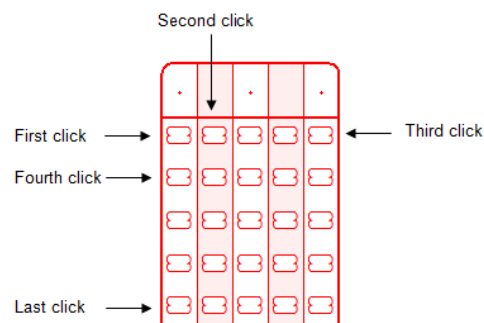


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## Question Answers

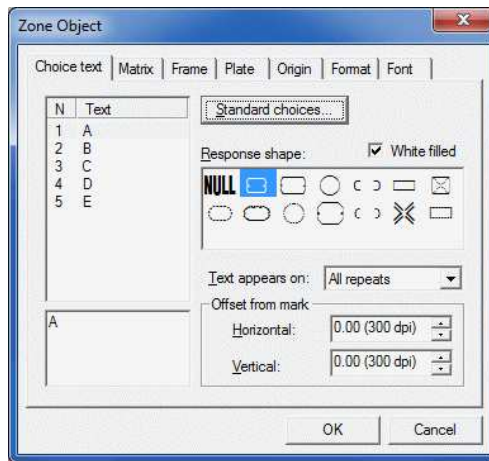
To set up the first group of 5 (of the 125 Questions):

- Click the Matrix Zone  button. The mouse pointer changes to a cross-hair. As with Student a series of clicks completes the zone.
- Position the zone in the first group of 5 timing marks.

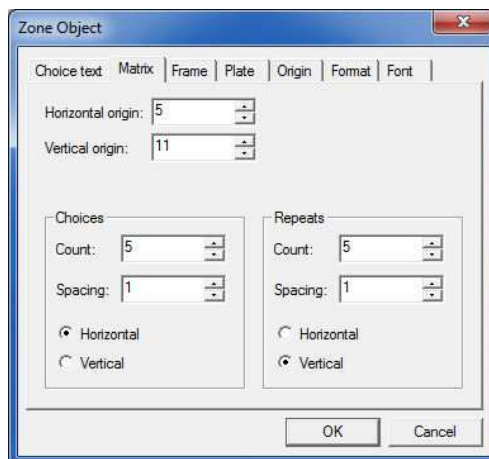


- The zone uses the same frame as the last zone created and for this zone the properties will need to be adjusted.
- Open **Properties** of the zone (opens to the **Choice Text** tab) and use  to set **Letters (upper case)**.

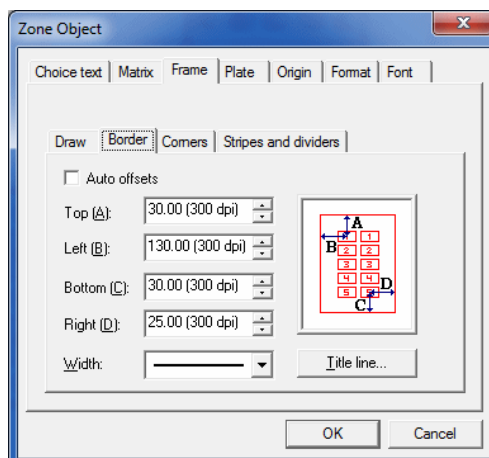




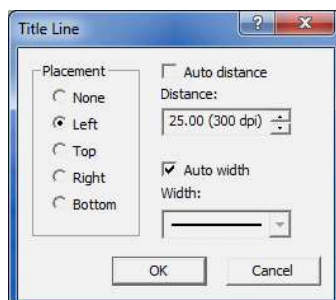
- On the **Matrix** tab check the settings match those below. The different order of mouse clicks used to create the zone inverts the **Horizontal** and **Vertical** settings for **Choices** and **Repeats**.



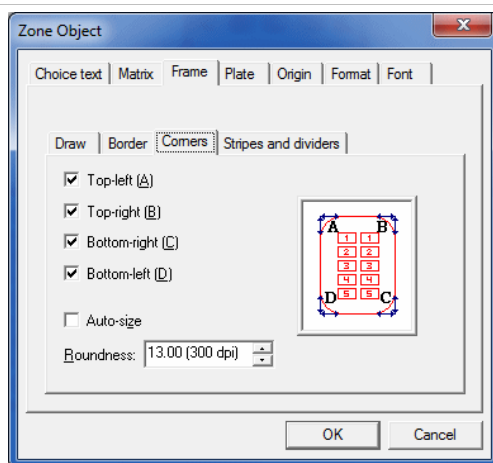
- The settings on the **Frame** tab need to be changed to move the title line to the left rather than top. Extend the **Left (B)** border and shorten **Top (A)**.



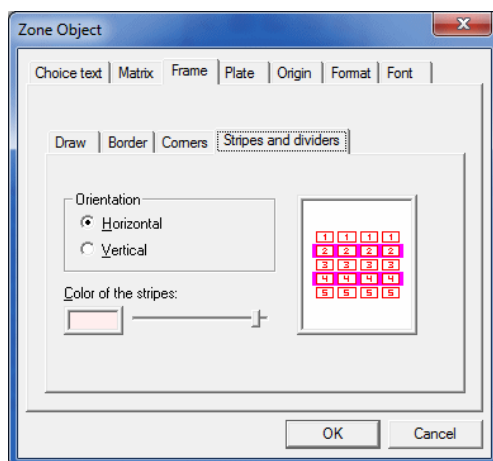
- In the **Title Line** dialog box, click **Left** and leave the other settings as is.



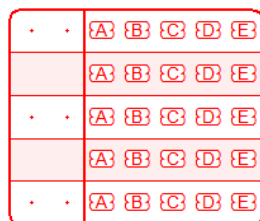
- On **Corners** tick to set rounding on all corners.



- On **Stripes**, change to **Horizontal**.



- Your zone should now look like below.



Copy the zone to create the 25 groups:

- While holding **Ctrl**, drag the zone to the right until it is in **Channel 14**. Continue to copy the zone until **5** are spaced evenly across the row. Any method for moving zones (listed in Test section) is suitable.
- You can continue to copy the zones individually, moving them to the next row of zones.
- Alternatively, select all five zones and copy and paste them as a group. Selecting the zones can be done by dragging the mouse over them (while holding left mouse button) or selecting each in turn while holding **Shift**.
- There should now be 5 x 5 question zones on the form.

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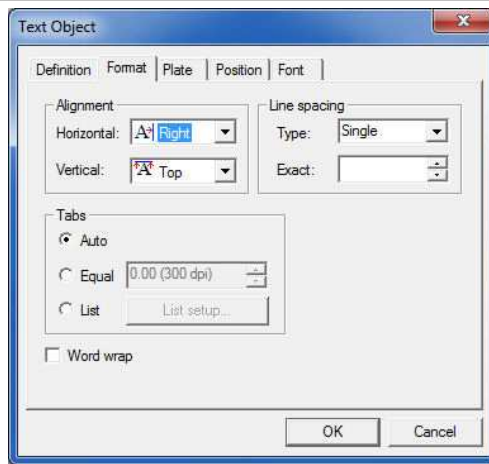
#### Number the Question Answers (Individually)

There are several ways of adding the text **Q1-Q125** to the form. Two ways are explored in this guide. The first one we will explore involves creating **Text objects**.

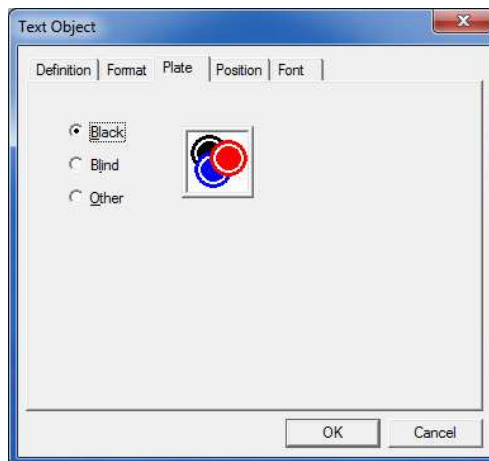
Create a Text Object:

- To place the first Text object, select the **T** tool. The mouse pointer changes to a cross hair.
- Drag the mouse to create the Text Object. The **Text Object** dialog box opens.
- Type **Q1-Q5** in the **Definition** tab.

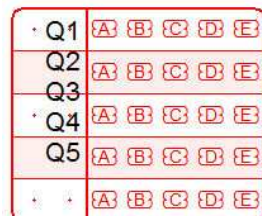
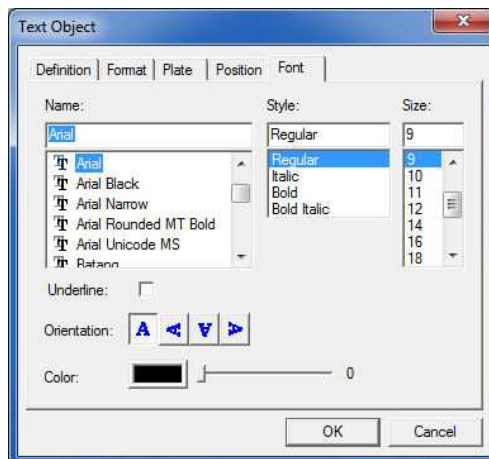
- On the **Format** tab set the **Horizontal Alignment** to **Right**.



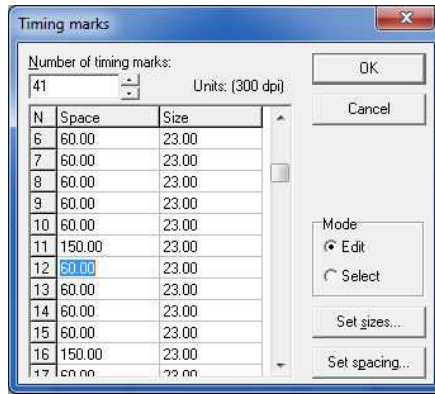
- On the **Plate** tab, set Plate to **Black**.



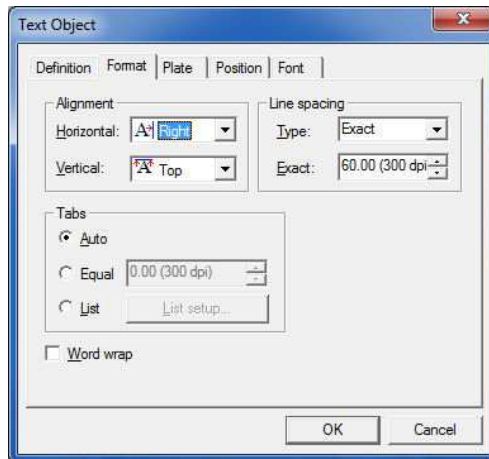
- On the **Font** tab set the Font size to **9**. Click **OK**.



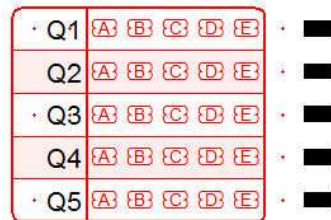
- The Text object is not aligned correctly. This is because Line Spacing is set to **Single** (default setting), but it can be changed on the **Format** tab. The text should be spaced to the same as the space between the Timing Marks.
- Check the space set between the Timing Marks by accessing **Properties** by right-clicking the Timing Marks.



- Open the **Format** tab in the **Text Object Properties**. Set the **Line spacing Type** to **Exact**. Set **Exact** spacing to **60.00**.



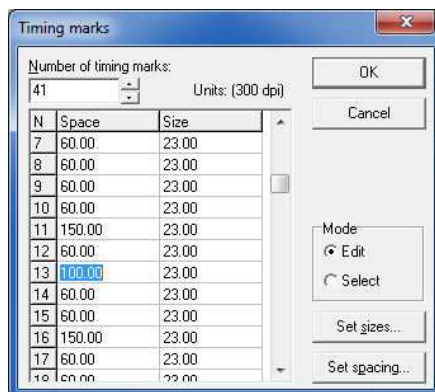
- Click **OK**.



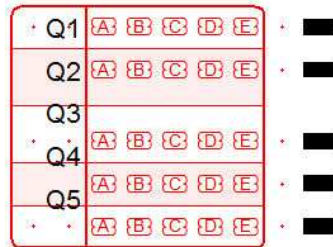
The spacing now matches the **Timing Marks**, and with this method the **Text object** can be copied across and down the form to create the 25 (5 by 5) text objects containing **Q1-Q125**. To retain even spacing, use **Nudge**. [See below for a guide to this.](#)

This method presents a problem when spacing between the Timing Marks is changed.

- Open **Properties** of the Timing Marks again.
- On the 13th Timing Mark, change **Space** to **100**.





- Click **OK**.

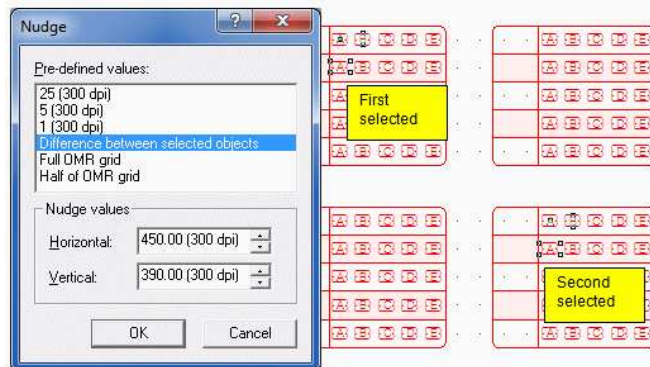


- The spacing of Timing Marks has changed, but the Text has not.
- Change the Timing Marks spacing back as before.

Using **Nudge** to arrange Text Objects

Nudge (using the keyboard arrows to move objects on the form) can be used effectively to arrange objects as needed. Nudge Distance  can be accessed through the Tools toolbar or menu. For this exercise use **Difference between selected objects**.

- Select two question zones one apart in both directions, and press  (nudge). Select **Difference between selected objects** and click **OK**.



- Now any selected object(s) can be moved by the "nudge" distances, using the arrow keys, in any direction.

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#### Number the Question Answers (using zones)

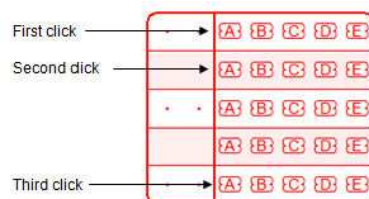
Using "NULL" or "no shape" zone objects to create **Q1-Q125** is reliable and quicker as it avoids aligning text objects and automatically adapts to response position changes. To do this we will create a zone with the response text **offset from the mark**. Response text can be offset left (negative) or right (positive) of the zone center.

The zone is a single line of 25 choices with no repeats ("short" zone) and is created, as with the other zones, with a series of mouse clicks. [For more information of "short" zones see the manual.](#)

Creating a 5 choice zone to start, then extending it, will make the process easier to understand.

Create a "short" zone:

- To create a zone with 5 choices in one column three mouse clicks are needed.
- Select the Matrix  tool. Click the top A in the top left zone.
- Click the second A, and finally the fifth A as below.

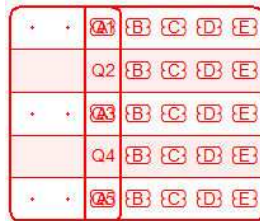


- To "finish" the zone with **5 Choices** and no **Repeats**, right-click the mouse anywhere on the page.



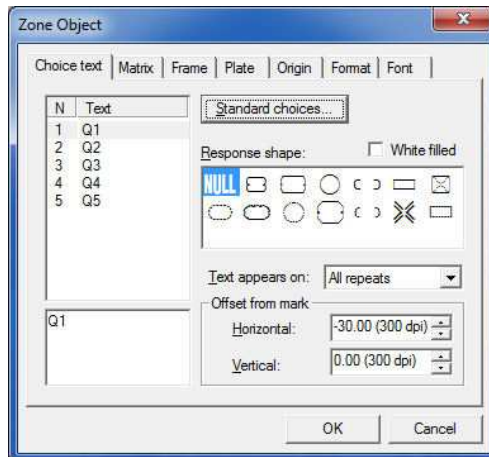
- Open the **Properties of the Zone**.
- Set the **Response shape** to **NULL**, and type **Q1-Q5** in the **Choice text** box.
- Click **OK**.



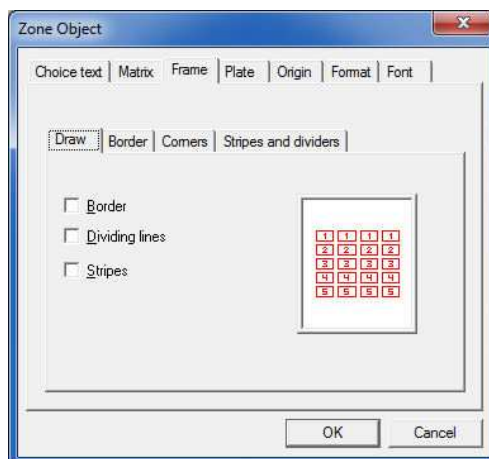


The new zone is placed on top the other and has the same **Properties** as the previously created zone, so there are a few changes to make.

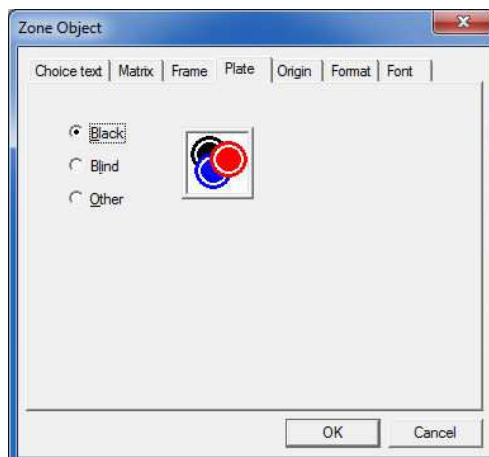
- Open **Properties** again.
- **Choice text** needs to move left, a negative **Horizontal offset**. Set to **-30.00**.
- Untick **White filled**.



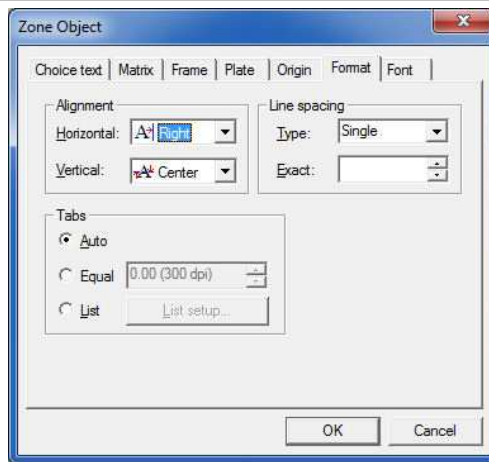
- Leave **Matrix** tab as is.
- On the **Frame** tab, untick **Border**, **Dividing lines**, **Stripes**. Settings for the underlying zone remain as is.



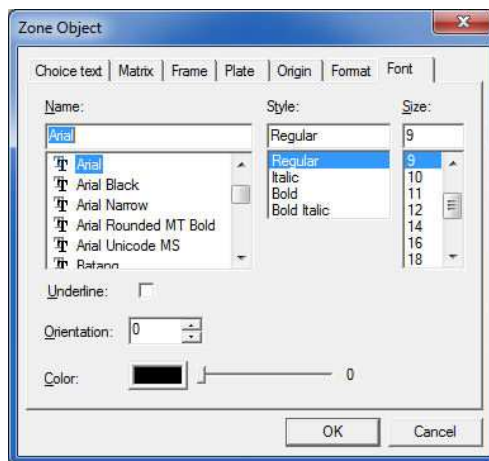
- On the **Plate** tab, set the plate to **Black**.



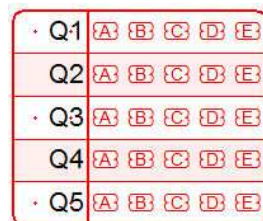
- On the **Format** tab, set the **Horizontal Alignment** to **Right**.



- On the **Font** tab, change the **Size** to **9**.

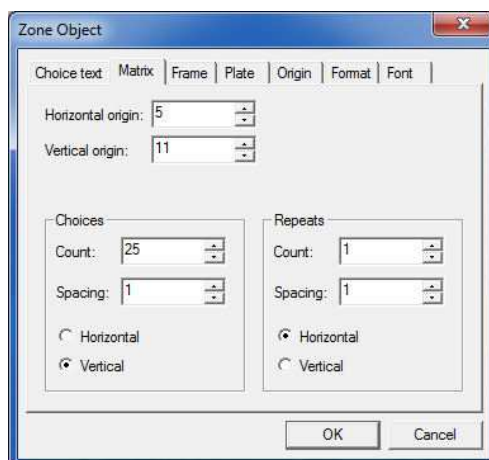


- Click **OK**. Your two zones should now look like below.



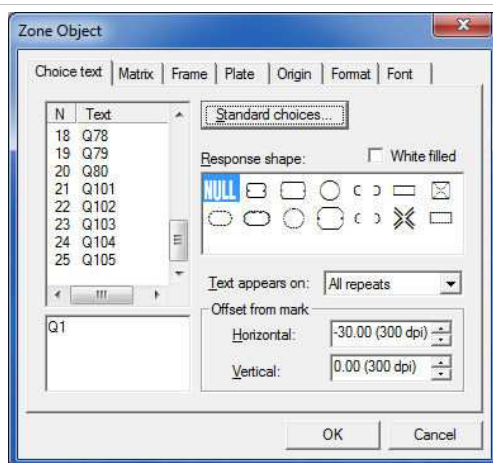
Rather than repeating this for each of the 25 zones that make up the 125 Questions, extending it over 25 rows saves time and effort.

- On the **Matrix** tab, set the number of **Choices** to **25**.

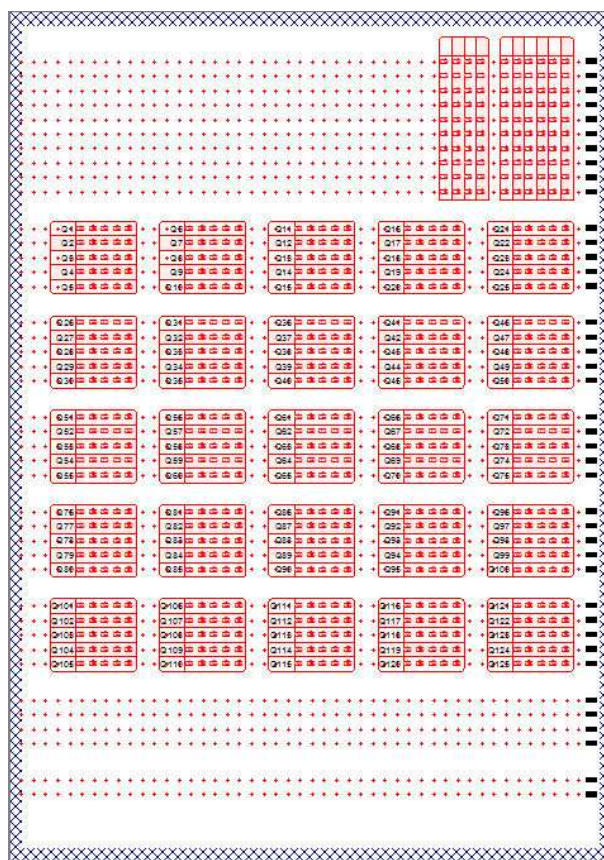


- On the **Choice text** tab, there are now 25 choices. Extend the numbers as shown on the sample PDF.





- Click **OK**.
- **Copy** and **Paste** the zone to the other columns, using one of the methods tried above in the Test section.
- Renumber the zones as per the sample PDF.
- Your form should now look as below.



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