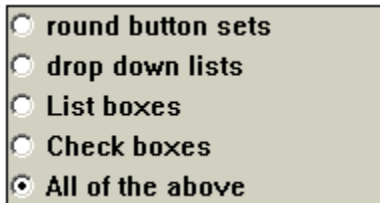


Quiz-Maker

Create your own online quiz or game show using MicroWorlds EX's choosers. Not sure what choosers are? Well, choosers are:



- round button sets
- drop down lists
- List boxes
- Check boxes
- All of the above

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Step 1: Preparation

Just a reminder before you start: remember to save your project frequently.

When preparing a quiz, whether on a computer or not, your first job is to decide on a topic. In this example, the topic is capital cities.

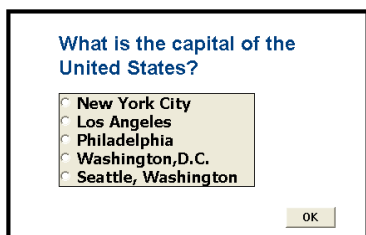
Think of 5 multiple-choice questions.

Next, think of a simple format for each page of your quiz. In this quiz, one question appears per page. A page would also include a list of possible answer choices and a way to go to the next question.

This means that on each page, there should be:

- a text box for the question
- a chooser to display the choice of answers
- a button to go to the next question

Your quiz will look something like this:



What is the capital of the United States?

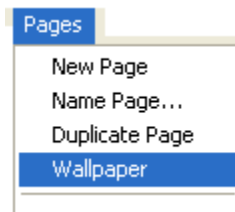
- New York City
- Los Angeles
- Philadelphia
- Washington, D.C.
- Seattle, Washington

OK

Step 2: Wallpaper

Each quiz page would look more interesting if it had a background design. Using the same design throughout the quiz gives it a consistent appearance. You can create a background for your quiz using the Wallpaper feature.

Select Wallpaper in the Pages menu:



You won't see anything right away. That's because Wallpaper is a special page. It does not appear in the page list found at the bottom part of the Pages menu. In the Project Tab, Wallpaper appears at the top, since it is used by the whole project, and not in the regular page list.

Any background you create on the Wallpaper page becomes the background for every page in the project. When on any other page, the Wallpaper cannot be erased or edited. The only way to change the Wallpaper is to return to the Wallpaper page.

Draw a background that leaves room for all the common objects you need on each page of your quiz— a text box, a Round button set, and an OK button. Keep your background simple – it should not distract people from the quiz.

To create Wallpaper you could:

- use the Painting tools to create your own background, or
- use a background or shape from the Clipart library, or
- import a picture from another source.



Step 3: Page layout – part 1

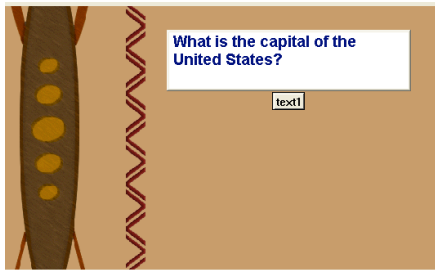
Once your Wallpaper is finished, open the Pages menu and select **page1**. Now create your first quiz question.

Start by adding a text box. Click on the text box tool in the Toolbar



Click on the page to create a multi-line text box.

Type your question and select the font, font size, and color using the tools in the Text menu.



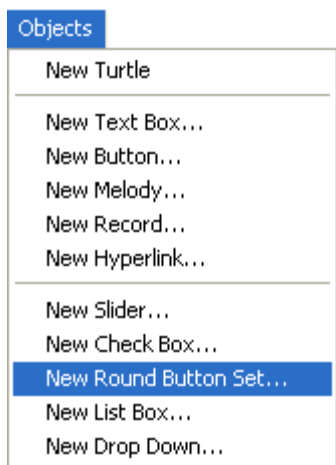
Right-click in the text box and select **Transparent**. Place the text wherever you want on the background.

Step 4: Page layout – part 2

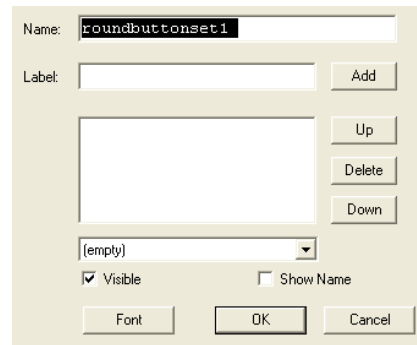
Next add a Round button set that displays the multiple choices for the answer. Remember, one choice should be the correct answer – the rest should be somewhat reasonable, but not correct.

(Note: When using Round button sets, only one choice can be selected at a time. So there should be only one correct answer per question.)

Open the Objects menu and select **New Round Button Set**.



The Round button set dialog opens:

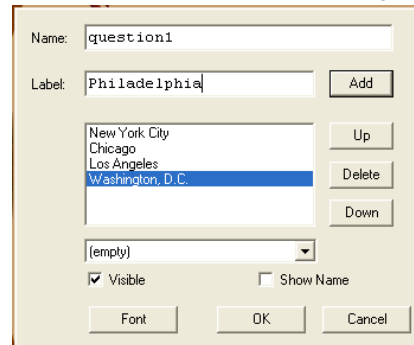


Give your Round button set a meaningful name, for example, `question1`. If you want, click on the Font button and choose a different font, font size, and font color.

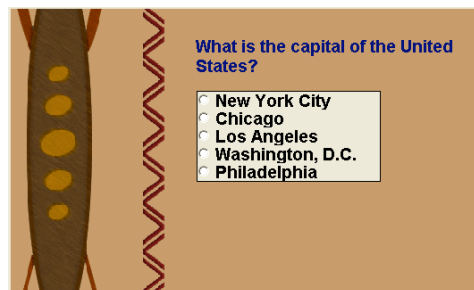
Near the bottom, you'll see the word (empty). This is the default selection. Leave it set to (empty). Whatever item in the list is used as the default selection will be already selected the first time the Round button set is displayed. In this case, you want nothing pre-selected.

Type your first answer choice in the space next to Label. Click the Add button to add this choice to the list. Follow these two steps for each choice. Use no more than 4 or 5 choices for each question.

Once you've added all the choices and renamed the box, click OK to close the dialog.



Your page should look something like this:



If you cannot see all of the words in the Round button set, select the text box by clicking just to the left of the box and dragging over it or by pressing CTRL and clicking on the box. Then drag one of the corners to make it larger.

Click in one of the selections to see how it works.

Step 5: Page layout – part 3

Finally, add an OK button. For now, this button switches pages, going to the next question.

Click on the Button tool in the Toolbar:



Click anywhere on the page. The button dialog box appears:

Name: button1
 Label: nothing
 Instruction: nothing
 Do It: Once Forever Visible

OK Cancel

In the space next to Label, type OK. In the space next to instruction, type: `nextpage`

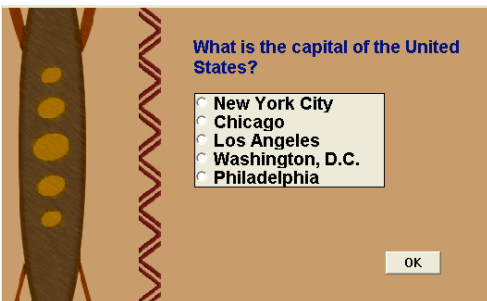
The `nextpage` command tells MicroWorlds EX to go to the next page in the page list.

Leave Do It set to Once.

Name: button1
 Label: OK
 Instruction: `nextpage`
 Do It: Once Forever Visible

OK Cancel

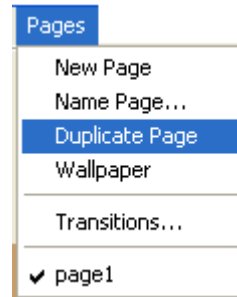
Click OK in the dialog and position your OK button on your page.



Step 6: Adding more pages

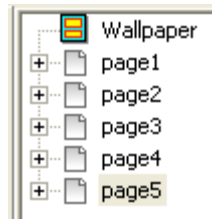
Now that you have designed the layout for the question pages, you need to duplicate this layout for all the questions.

Select **Duplicate Page** in the Pages menu:



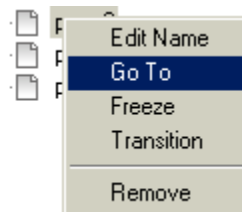
Duplicate this page four times, so that there are 5 question pages.

Look at the page list in the Project Tab. It should look like this:

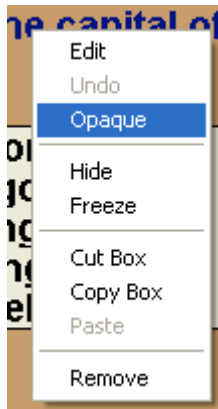


This is the order that `nextpage` uses when going from page to page. So question 2 should be put on page2, question 3 on page3, etc. (The page list appears in alphabetical order. If you want to rename your pages, but keep them in the same order, you must rename them so that they are in the same order alphabetically.)

Right-click on page2 in the Project Tab. In the pop-up menu, select **Go To**:

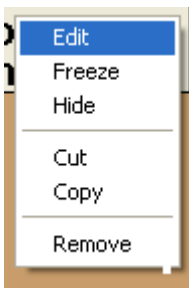


Right-click in the text box for your question on page2 and select **Opaque**



Delete all the current text and type your second question. Once you've typed it, right-click on the text box and select **Transparent**.

Next, right-click on the Round button set for your answers and select **Edit**:



Change the name of the Round button set to `question2`. Delete the current answer choices in the list and enter the answer choices for your second question.

The OK button does not need to be changed.

Make the same type of changes on each page. You should have five pages, each one with a different question and a different set of answer choices.

Since there is no question after `question5`, the OK button on `page5` could return to `page1`. In the instruction line of the button on `page5`, instead of typing `nextpage`, type: `page1`:

Name:	button1
Label:	OK
Instruction:	page1
Do It:	<input checked="" type="radio"/> Once <input type="radio"/> Forever <input checked="" type="checkbox"/> Visible
<input type="button" value="OK"/> <input type="button" value="Cancel"/>	

Now try your quiz a couple of times.

Step 7: Adding more features – an opening screen

Create an opening page for your quiz. Select **New Page** in the Pages menu. In the same menu, select **Name Page** and give the page a meaningful name, such as `intro`. On this page, describe your quiz and invite your friends to participate.

To personalize the quiz, you may want to start by asking your friend his or her name. To do this, add a button that both asks the participant's name and goes to the first question.

In the command center, type:
`question [What's your name?]`

The `question` command opens a dialog box containing a blank line in which the viewer can type an answer. Type a name in the dialog box and click OK.

Next, in the command center, type:
`show answer`

`Answer` reports whatever was typed in the question dialog box. It reports it to `show`. `Show` prints its input in the Command Center. The name should appear in the Command Center

Now type this in the Command Center:
`announce sentence [Hello,] answer`

`Sentence` (`se` for short) creates a sentence made up of its inputs, which can be either words or lists.

A dialog appears with the message:
 Hello, Alex (or whatever name you typed)

In the project Procedures tab, write a procedure to welcome your participants.

```
to greet
question [Welcome to my quiz. What's
your name?]
announce se [Hello,] answer
page1
end
```

On the intro page, create a button that runs this procedure. Give the button a clear label. Select Do It Once:

Label:	Please click here to start
Instruction:	greet

Test your button a few times.

Step 8: Starting at the beginning

A project usually opens on the same page that was displayed when the project was saved. To make sure your project always opens on the opening page, write a startup procedure in the project Procedures Tab.

```
to startup
intro
end
```

A `startup` procedure runs automatically whenever a project is opened. This procedure ensures that everyone starts on the correct page.

Remember to use the name of your opening page.

Step 9: Adding more features - recording the answers

There are two problems with the quiz. First, the Round button sets don't get reset between users. The second person that tries the quiz sees the first person's answers. Second, there is no place to see all the answers.

You can solve both problems at the same time.

Add a feature that lets you record the answers a person selects. The OK button can be programmed to first record the answer on an answers page, then reset the Round button set, and then go to the next question.

Create a new page and give it the name `answers`

Create a text box that will contain the selected answer for each question. Give each text box a meaningful name, for example `answer1`, `answer2`, etc.

Create and name a text box for the name of the person taking the quiz. (Remember, since the word `name` is a MicroWorlds EX primitive, you must use a different name for this text box, for example, `yourname`.)

Now try this. In the Command Center, type:

```
show question1
2 (Your answer may be different)
```

Whenever you create a new chooser or text box in a MicroWorlds EX project, the name of that chooser or text box can be used as a reporter to report either the value of the chooser or the contents of the text box.

`question1` (or whatever the name of your chooser is) reports the answer that is selected in the first Round button set. It reports it as its position number in the list of answer choices. If the first answer is selected, `question1` reports 1, if the second answer was chosen, it reports 2, and so on.

In the project Procedures Tab, write a procedure that records the person's name and the answers on the answers page.

```
to record
yourname, pr answer
answer1, pr question1
answer2, pr question2
answer3, pr question3
answer4, pr question4
answer5, pr question5
end
```

Placing a comma after the name of the text box indicates that the next instruction is for that text box - it makes that text box the current text box. Print (`pr` for short) prints its input in the current text box, at the end of its contents. Nothing is cleared. In this case, `print` prints whatever is reported by answer and each Round button set.

Using this method, you can see who took your quiz and how everyone answered.

Step 10: Resetting the answers

Once all the answers are recorded, you can reset each Round button set so another person can take the quiz.

To do this, you need to set each Round button set to 0. For example:

```
setquestion1 0
```

Write a procedure in the project Procedures Tab that resets all the Round button sets:

```
to reset
setquestion1 0
setquestion2 0
setquestion3 0
setquestion4 0
setquestion5 0
end
```

Remember - You must record all the answers before you reset the Round button sets!

The best time to record all these answers and reset the Round button sets is after the quiz is complete. Go to page5 of the quiz.

Edit the instruction for the OK button so that it now records all the answers, resets the quiz and then goes to the intro page.

Label:	OK
Instruction:	record reset intro
Do It:	<input checked="" type="radio"/> Once <input type="radio"/> Forever

Now try the quiz. Once you've answered all the questions, go to the `answers` page to see if your answers are all recorded.

Step 9: Challenges

Here are some challenges to make your quiz fancier:

- Add more information to your `answers` page. For example, you may want to include a short version of each question and the correct answer (or its position number).
- Let participants see which questions they answered correctly by displaying the `answers` page once they've finished the quiz.
- Add animation to each page.
- Graph the results.