DOCUMENTATION

Welcome and thank you for joining the Alpha-testers of WonderChoice project.

Project URL:

https://wondertest.org/wonderChoice

You can be involved in the Alpha-testing as you want, you can share with us your ideas on the philosophy of WonderChoice, how it is relevant in your workflow, how clear is the interface..., all your comments are welcome. You can also report bugs, lacks and errors to help us improve the quality of the application.

Just send me an email (use for the moment my regular email : jean.philippe.riviere@gmail.com) with your comments, in case of bugs : describe the problem, precise the context and if necessary, join a snapshot.

WonderChoice purposes

WonderChoice application is a prototype for an item generator based on choice interaction. Its purposes are to offer **more efficiency** to your workflow, **more freedom**, and **more creativity**.

A better workflow

- WonderChoice can generate item packages, these packages can be imported in TAO platform in one click respecting a PCI format.
- WonderChoice can generate multi-choice/single-choice items using a text list.
- WonderChoice can integrate a Microsoft Word presentation using its own rich editor.
- WonderChoice can automatically index the choice-answers of you items.
- WonderChoice can integrate different parser to massively import your items. A generic
 parser is available in this Alpha version and named #code (Sharpcode). It can handle more
 than 100 items imported in one row to your WonderChoice interface.
- WonderChoice has its own item-metadata manager. It means that all item generated are ready to be included in an item library.

A better item presentation

- WonderChoice use a graphic interface to add / modify / delete all elements that will
 compose your item. You are free to choose where the label or the checkbox will be
 positioned and what element you want to add.
- But freedom brings complexity, WonderChoice helps you with special handler, a magnetic grid, group selection, and shortcuts to quickly reorganize your elements.
- You are also free to add images and graphics elements and manage their superposition.
- You can resize and rotate all elements.
- You can choose through the parameter menu many variations for checkboxes, ticks, text ... The parameters options are built to be enriched.
- You can resize the canvas and build quickly items adapted to a mobile phone or any specific format

Events handlers and new possibilities, respecting the standards...

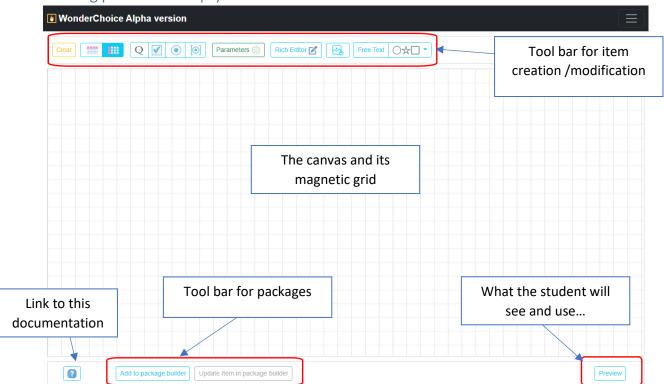
WonderChoice proposes some special modalities

- The elimination mode (you can ask to the student to choose and eliminate answers)
- The feedback (When the choice is clicked a text, or an image can appear)
- The hint (a light globe can be clicked to get some help)
- Shuffling the choices
- Choice limiter
- Reset button
- Time limiter

These options are already present in many assessment tools but, WonderChoice authorize to explore more events, in that Alpha-version, you can discover the possibility to create a hierarchy for clicks and choices. Right now, I'm working on text to speech integration. That will be the next feature...

Documentation

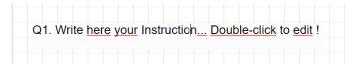
Starting point : the empty interface



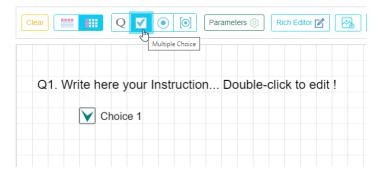
Create a question



If you double-click, you will access to the edition mode, you can see that the browser corrector identifies some errors (my browser is in french).



Add a choice

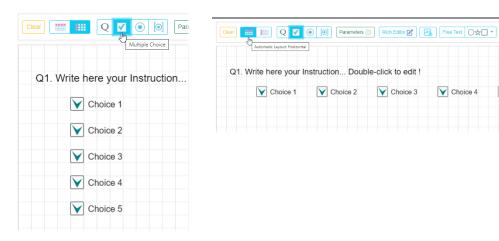


If you press 4 more times, because the vertical display is by default, the choices will automatically be aligned vertically. But If you reset the page and press horizontal display button, you will have now your choices displayed in horizontal mode.

Choice 3

Choice 4

Choice 5

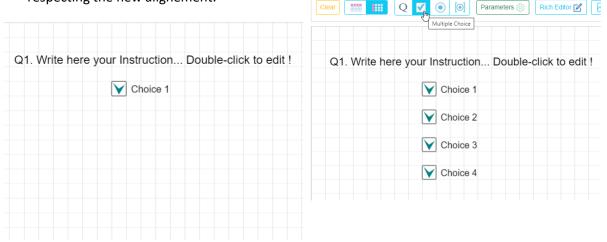


Modifying a choice

- 1. If you double-click on a choice text, you will be able to edit it as we did for the question.
- 2. If you want to move the choice, I mean the group: checkbox and text label..., just use the checkbox as an handler! You see, over the checkbox, the mouse has now a move icone instead of the classic arrow. When you drop it, it automatically align with the magnetic grid.



3. I've decided that my first choice will be at this new position, when I add a new choice, it is respecting the new alignement.



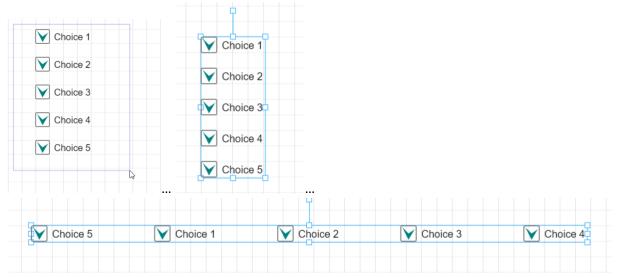
4. I want now that my text will be under the checkbox...

Just click and drag on the label, not on the checkbox. You can drop it where you wan, the



label is completely independent and has no magnetic constraint.

5. I want now to switch from vertical display to horizontal display, You must select the item group: use the mouse, click somewhere on the grid and drag the mouse to draw a rectangle selector... Once you release the click, you will have your group selected with new handlers. For the moment, just press H on the keyboard for horizontal display...

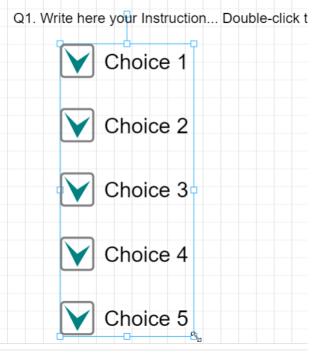


If you press V, you return to vertical mode.

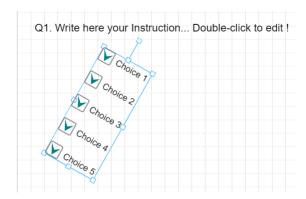
6. Action possible with a group of choices

Once a group is defined, you can click on an element to move the whole group. You can use the handlers to transform all the elements:

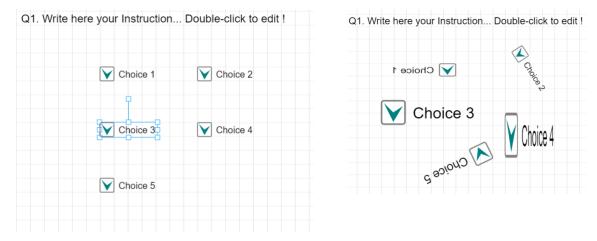
- Corner handlers change the size proportionaly (check the mouse position)



- Sider handlers change only one dimension (width or height)
- The handler above authorize the group rotation



7. The graphic selector can work separatly with each choice.



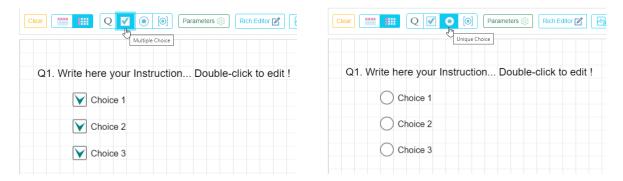
You see in that messy example that we can have a mirror effect showed for choice 1.

8. Deleting a choice

Just select it using the box selector and press D.

MultiChoice or Single Choice?

The difference between multichoice an single choice is clear. You have 2 dedicated buttons.



But you if you need more than one question in your item, you could need more options...

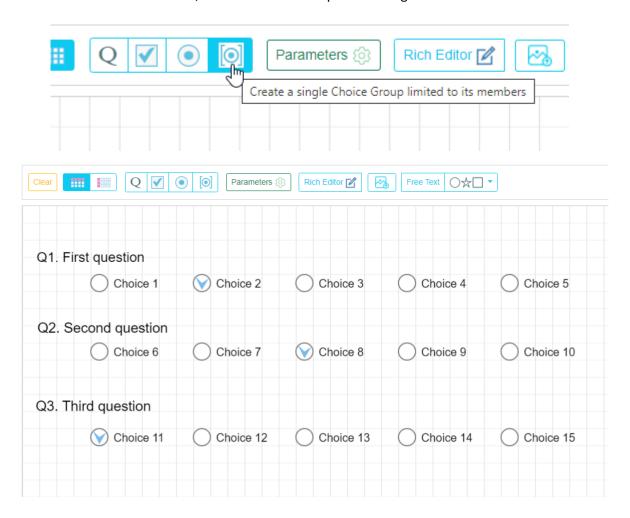
The main single choice button has a full scope, it means that when you are using it, when it is clicked by the student, it is cancelling all other clicks. For example, if you mix checkboxes and singlechoices you could have this results...

Q1. Write here your Instruction	Double-click	to edit!	
Choice 1			
Choice 4	Choice 5	Choice 6	Choice 7
Choice 2			
Choice 8	Choice 9	Choice 10	Choice 11
Choice 3			B
Choice 12	Choice 13		

Changing to choice 3, you cancel automatically all other checked choices...

Choice 1			
Choice 4	Choice 5	Choice 6	Choice 7
Choice 2			
Choice 8	Choice 9	Choice 10	Choice 11
Choice 3			
Choice 12	Choice 13		

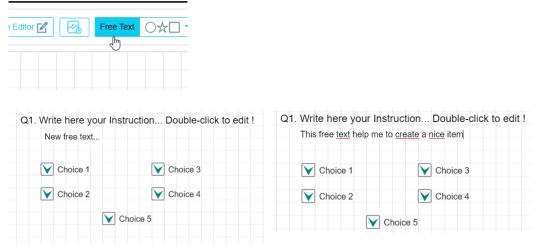
This is powerfull in a hierarchical mode, but it is a problem if you need multiple series of single choices. For that use this button, it will control the scope of the single choice elements



Adding Free-Elements

Free-Elements are texts or images that are independent from any choice element. You can use a free element in different situation:

1. To simply add some text... using the free text button.

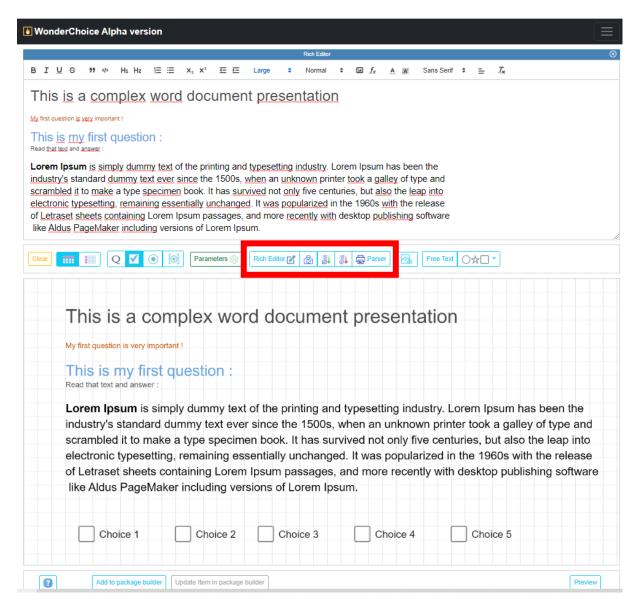


2. You can be confronted to a complex presentation build in Microsoft word that you must respect.

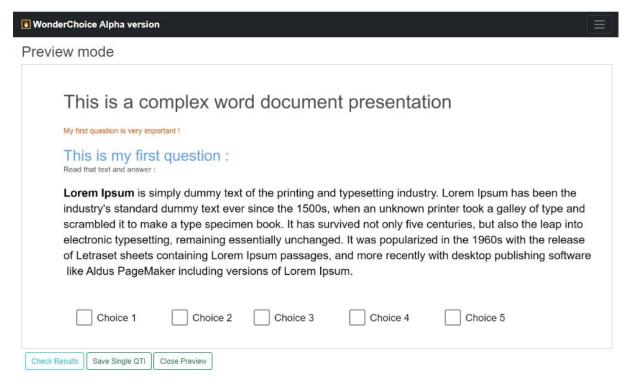
Two ways to solve this problem,

 You can copy and paste the word document in the WonderChoice Rich Editor (a word paste button should be available in the next version to a better respect of the format). Then take a snapshot and send it to the canvas using the camera button of the rich editor toolbar





In preview mode:

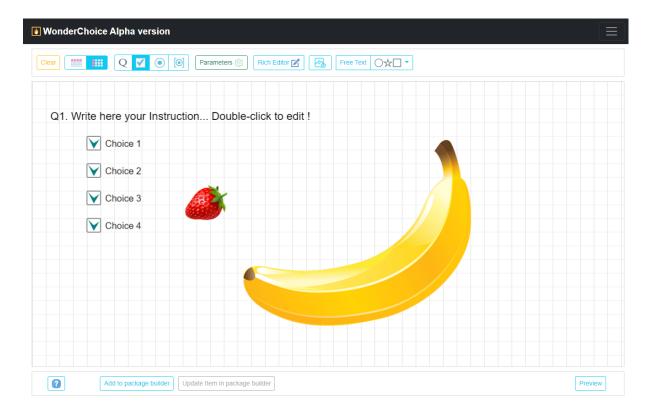


- 2. Take a snapshot of you word document, save it as a picture and import it. Read the next point to use images.
- 3. To illustrate your item, add an image, click on



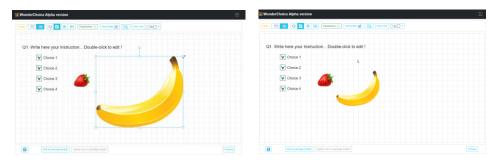
And select an image on your computer. Let's insert a strawberry and a banana...

These files are PNGformat, but the application accepts also JPEG, JPG, SVG and GIF. If more format is needed it can be added.



As you see, the sizes are different. To change it, use the box select as we used it before for example on the banana.

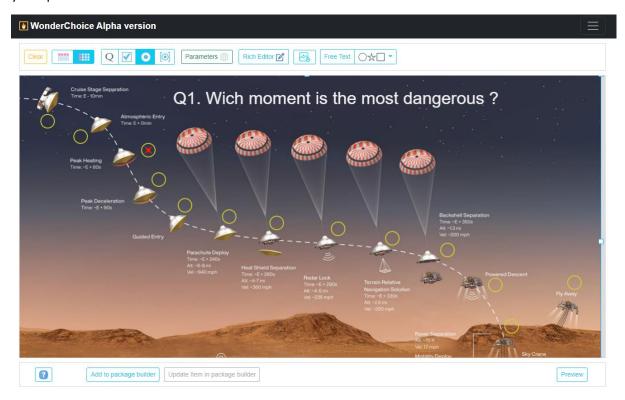
We have now selected the banana and we can use the transformer as we need, in that case, just decrease the size using the corner handler.



You can drag and drop the image to choose their position. Free elements are not constraint by the magnetic grid.

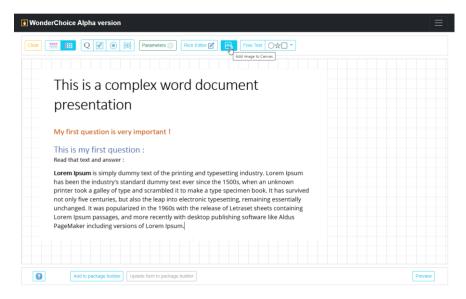


It is possible to use an image as a background image, to do it quicker... put it in first and then add your questions and choices...

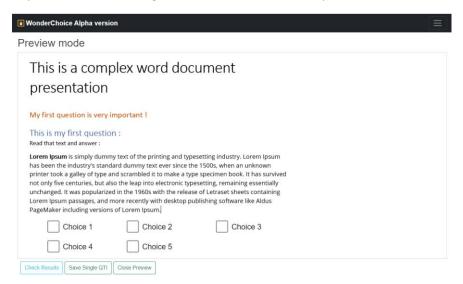


On this example you can recognize the question Q1 and the yellow dots that are single-choice round boxes. The labels are hidden (use parameter panel to do it globally avoiding 13 clicks). It is possible to name the hidden label and get a clear (explicit) information on what was clicked in the metadata (see below).

Using a snapshot of a word document could also be an efficient solution.



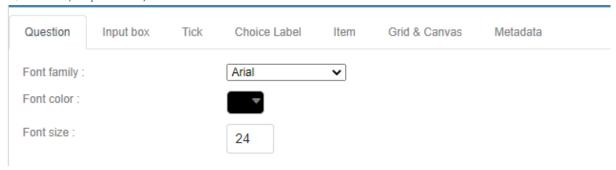
In preview mode: (the grid is not visible; this is an option...)



The parameter panel

The parameter button Parameters or reveals the tab system that organize all the item generator options.

Question, Input box, tick and choice label...



The question tab will modify the single instance of the main instruction. You can replace the question element by any free text or image and customize it more.

Three tabs concern the choice element, you can modify the input box, the tick and of course the label.



The choice label has an automatic index system (alphabetic or numeric).

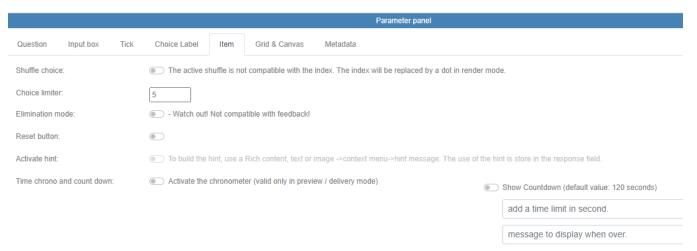


You can use the transparency option and to create clickable area that the test-taker will have to find on a picture, or on a map.

The choice label can be hidden. This feature can be also called from the context menu.

The item tab

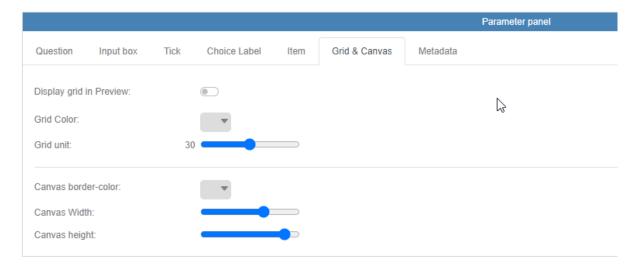
It organizes all actions concerning the item in its globality.



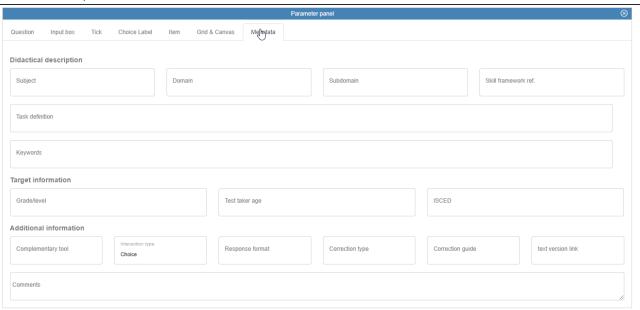
The Grid & Canvas tab

Few options are here available, but they are quite important. First you can keep or hide the grid in the test taker view. You can also change the color of the grid but much more important, you can change the grid unit, if you want a full control and cancel the magnetic effect reduce the grid unit to 1.

You can create special format adapted to your target. If you change the Canvas size, you can fit perfectly mobile phone format or tablet. You have a full and stable control... As it is easy to create and modify any item the responsiveness is out of our consideration.



The metada panel

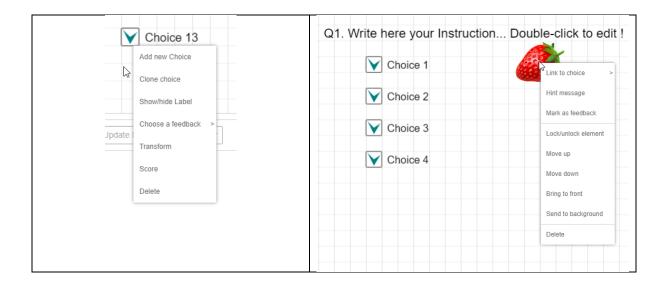


I really wanted to include in this alpha version the metada question. This authorizes the item to be easely integrated in an item library.

The context-menus

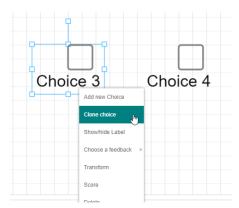
For the moment, there are only 2 context-menus that can be called using right click when the user's mouse is over a choice(1) or a free element(2) that could be a free text or an image.

Here on a choice element	Here on a free element	



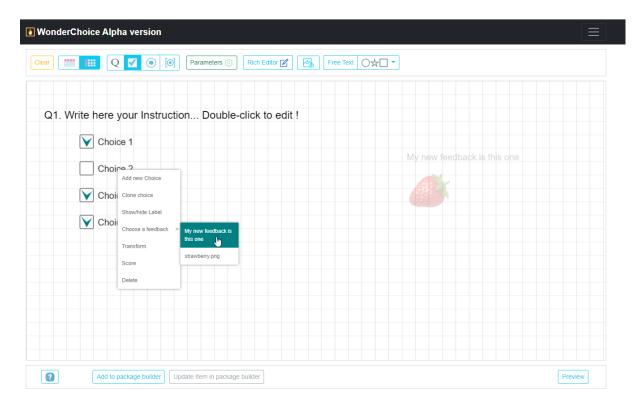
The choice Context-menu

it is possible to add a new choice or clone an existing one. The cloning operation is interesting if you have modified the label position for example or the size of the checkbox. You are earning time avoiding rebuilding a precise position.



You can easily hide the choice label, only for one element.

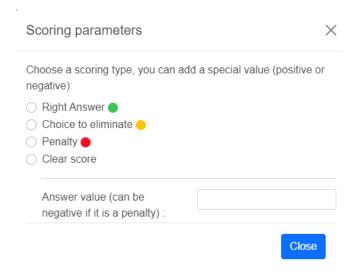
You can choose feedback. If you click on this entry, no propositions are available, because it is necessary to add first to a free element the feedback attribute. Insert a free element, right click on it and chose "Mark as feedback", it will now appear in the list of feedbacks available. Just go back to your choice and in the context menu click on choose a feedback: if your element is a text element, the text will be present, if it is a image, the file name will be used.



It means that one element or many could be attached as feedback. You are completely free to use it as you need. Once you have chosen your feedback, in the editor the free element chosen is getting more transparent, if you choose/click the choice, it appears normally again. Check the real effect in the preview...The element will appear only if the answer is chosen.

The context-menu transform entry displays the transform box and handlers for the pointed element.

The score entry display a pop-up to build the scoring system.

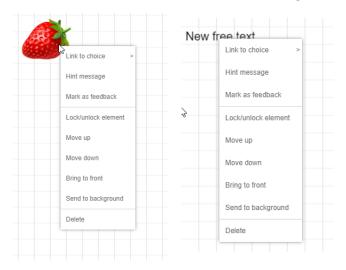


You can encode the answers on 3 modalities: right answer, elimination, penalty. The scoring system is still experimental.

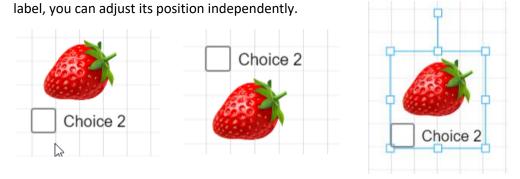
You can delete a choice using this context-menu, it is also possible to use the select box and press del on your keyboard.

The free-element context-menu

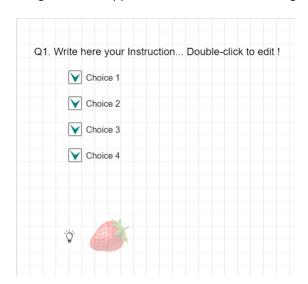
This context menu is available on texts and images.



Link to a choice: you can add a free element to a choice group. Once you've click, the element is dependent of the group, if you use the checkbox as a handler, it will follow the move. But as the



Hint message: once clicked, a light bubble appears, and the free element get faded.



It is now available in preview mode

Preview mode	Preview mode
Q1. Write here your Instruction Double-click to edit!	Q1. Write here your Instruction Double-click to edit!
Choice 1	Choice 1
Choice 2	Choice 2
Choice 3	Choice 3
Choice 4	Choice 4
*	♥
•	

Mark as feedback: see previously the feedback section.

The second part of the context-menu helps you to manipulate the free element, you can fix its position (lock it), and you can also playing with superposition moving up and down element from the others, bringing it to the front (last layer) or to the background (oldest layer).

As a choice you can delete a free element using the context-menu entry or the select box and the "del" keyboard key.

The rich editor as a super Tool!



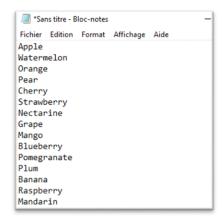
The rich editor can be used in many ways:

Adding a complex and rich document to your Canvas...

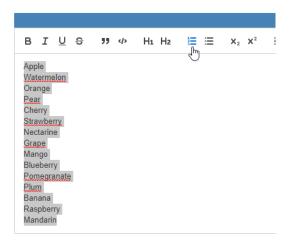
To integrate a text document in the canvas as an image. See the example before with the word document.

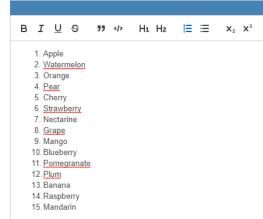
Quick choices generator

To quickly write all your choice to your item. For example let define a long list of fruits: they will be the choices of this new item. Here they are in my notepad!



Let's copy them and paste in the rich editor. Then lets select them and define it as a list





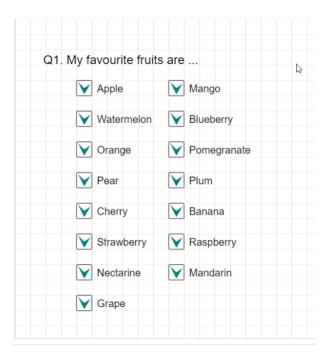
Choose an orientation for your choices:



In the rich editor Toolbar choose what kind of choice you want ... Multi-choice or Single- choice ? and click...



Your item choices will appear immediately, respecting the horizontal or vertical display...





In the previous example we have chosen the multichoice modality... If we use the single choice...

Apple	Watermelon	Orange	Pear	Cherry	Strawberry
Nectarine	Grape	Mango	Blueberry	Pomegranate	Plum
Banana	Raspberry	Mandarin			

Voilà!

The parser project

This part of the project is very important because it simplifies the conversion from a text version to a canvas version. You must keep in mind that in this project, all contents are not blocked in one format, the WonderChoice project manage all kind of formats and promotes fluid conversion to QTI/PCI format.

To explore this kind of solution, I've created two concepts: the #code parser and the item package...

1. The #code parser

It is a way to encode a text version of an item. In appendice, you will find the #code description. Using this code, you can add tags to your text item version. In the example below, the tags are highlighted.

#Q Who was Napoleon? Choose the right answer and eliminate the worst.

#C_A french guy #FB_You can be more precise

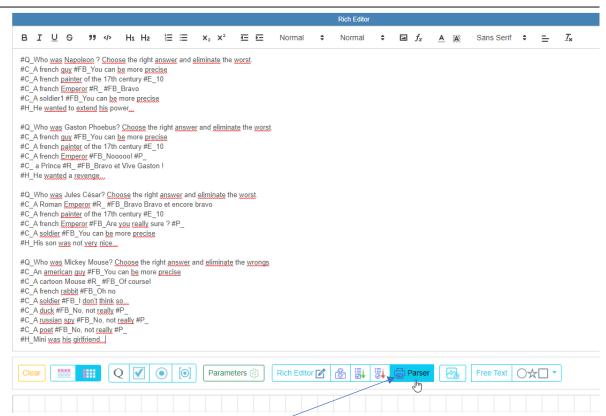
#C_A french painter of the 17th century #E_10

#C A french Emperor #R #FB Bravo

#C_A soldier1 #FB_You can be more precise

#H_He wanted to extend his power...

I have create a list of 4 items based on this code... I copy/paste in the rich editor

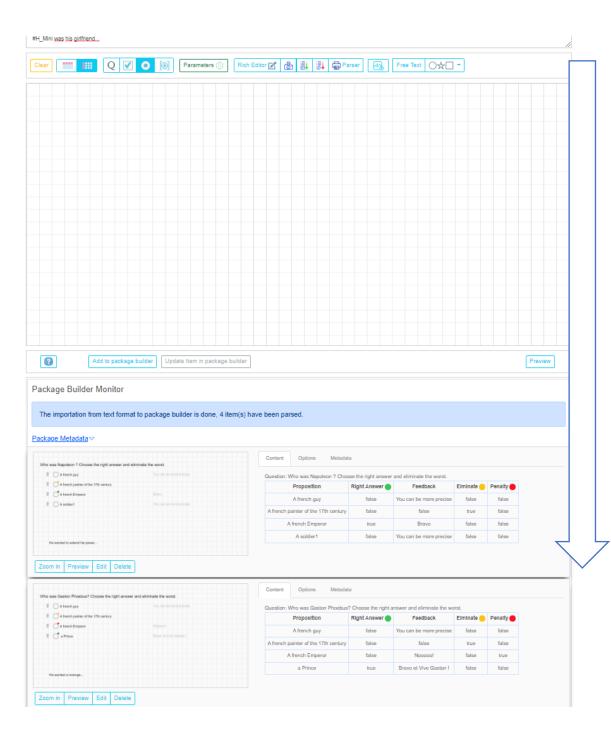


And click on the Parser button highlighted in blue.

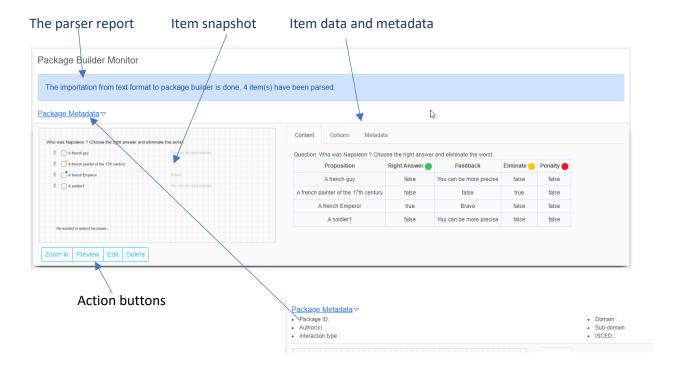
WonderChoice will ask you if you prefer multichoice or single-choice?



Click on your preference... and automatically, WonderChoice will generate four items. The screen is scrolling down under the usual canvas, and it shows know the package builder monitor...



Let's take a look at one package element...



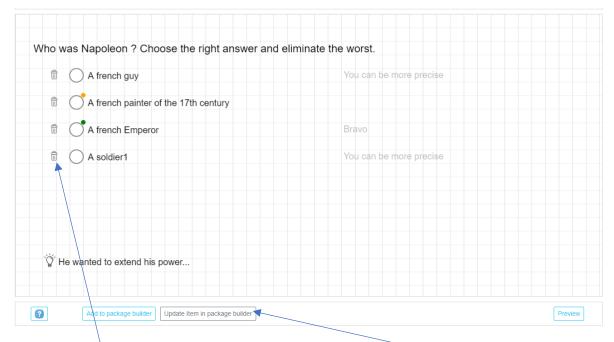
Because you must keep the control of this process, you can verify with the snapshot that the item is conformed. You can zoom in to have a better idea or use the preview button to check the test taker view. You have also the possibility to edit the item, modify it and save it back to the package.

You can also quickly check the validity of your item data and metadata using the tabs...



If you notice something wrong, you just have to edit your item using the edit button. It sends to the editor all elements.

In the example let's edit the Napoleon item...



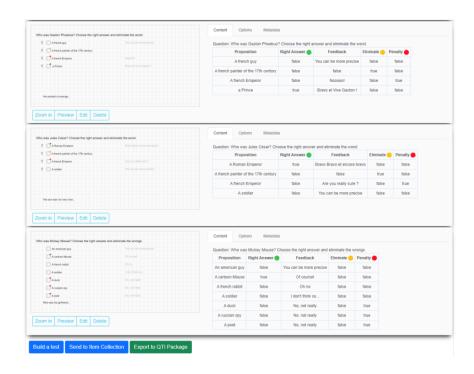
As you see, the elimination mode is active, you also noticed that the update button is active too. Just click it to update the changes. It will send it to the end of the item package list.

Once you parsed all the items, you are free to add more items to this package and for example create a new item and add it using the button :

Add to package builder

All these actions take place on the client, not on the server. We are using full javascript.

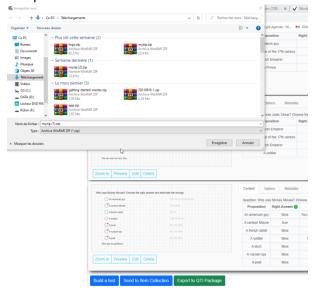
Each item card-package shows that all data and metadata are here structured and ready to be exported to another format. If you scroll down to the bottom list...



The blue buttons are for the moment not functional (coming soon).

You can see that it is possible to export to QTI the whole package and use it in TAO platform for example.

If you click on export to QTI Package, you will have the possibility to download the package to your computer.



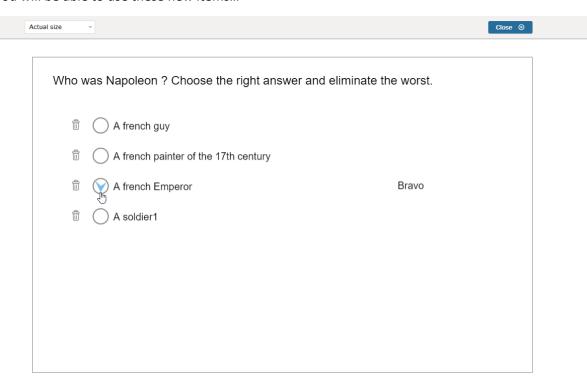
How can we use this package in TAO?

First you have to install in TAO the wonderChoice PCI, using the WonderChoice PCI ZIP package. To get the zip go to https://wondertest.org/public/pci/wonderChoicePCI.zip. Download and install it.

To add your item, just use the import process in tao



You will be able to use these new items...



Documentation written by Jean-Philippe Rivière, WIQUID. Toulouse, 09/10/2021