



Using Smug's Exam Builder Plugin

Smug's Exam Builder plugin is your key to creating unique, quality multiple choice style exams using either the regular Buzztouch Interactive Quiz or the excellent NAD Advanced Quiz to present the exam.

So let's approach some of the basic questions first...

1) What is the difference between a 'Quiz' and an 'Exam'?

A) A 'Quiz' contains a pre-set number of questions from a single pool. An 'Exam' contains questions derived from multiple question categories, or 'pools'. The Smug Exam Builder will take one or more 'pools' of questions and pull a specified number of random questions from each pool, providing a high degree of control over the mix of questions to be used.

2) What is a 'Pool'?

A) A 'Pool' is a list of questions on a topic or category. A standard quiz uses a single list, or pool, of questions/answers. The Smug Exam Builder allows you to use multiple question pools to create an exam, thereby allowing you greater control on the exam content and ensuring no two exams are completely identical. You can have any number of questions in each pool.

3) So how does the plugin pull this all together?

A) The Smug Exam Builder will take one or more 'pools' of questions, and pull a specified number of random questions from each pool to form an overall set of questions to be presented. They are then added to a Screen Object, which is 'passed' to the Quiz Plugin of your choice. If you repeat the exam, the actual questions presented will change, thus ensuring no two exams are identical.

4) So all I need is the Smug Exam Builder plugin for great exams?

A) Almost. The Smug Plugin Builder is **not** a completely **stand alone** plugin, it **requires** either the **free** Buzztouch 'Interactive Quiz', or the 3rd Party (paid) 'Advanced Quiz Plugin' (From Nad the Vlad, and I love this plugin). The Smug Exam Builder plugin acts as an extension to either of these, using the Quiz Plugin as an "Engine" to present the



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exam to the user, with the Smug Exam Builder Plugin providing enhanced question control and management.

5) Do I have to use a Quiz Plugin? Can't I just assemble a few Question Pools without having to configure a quiz?

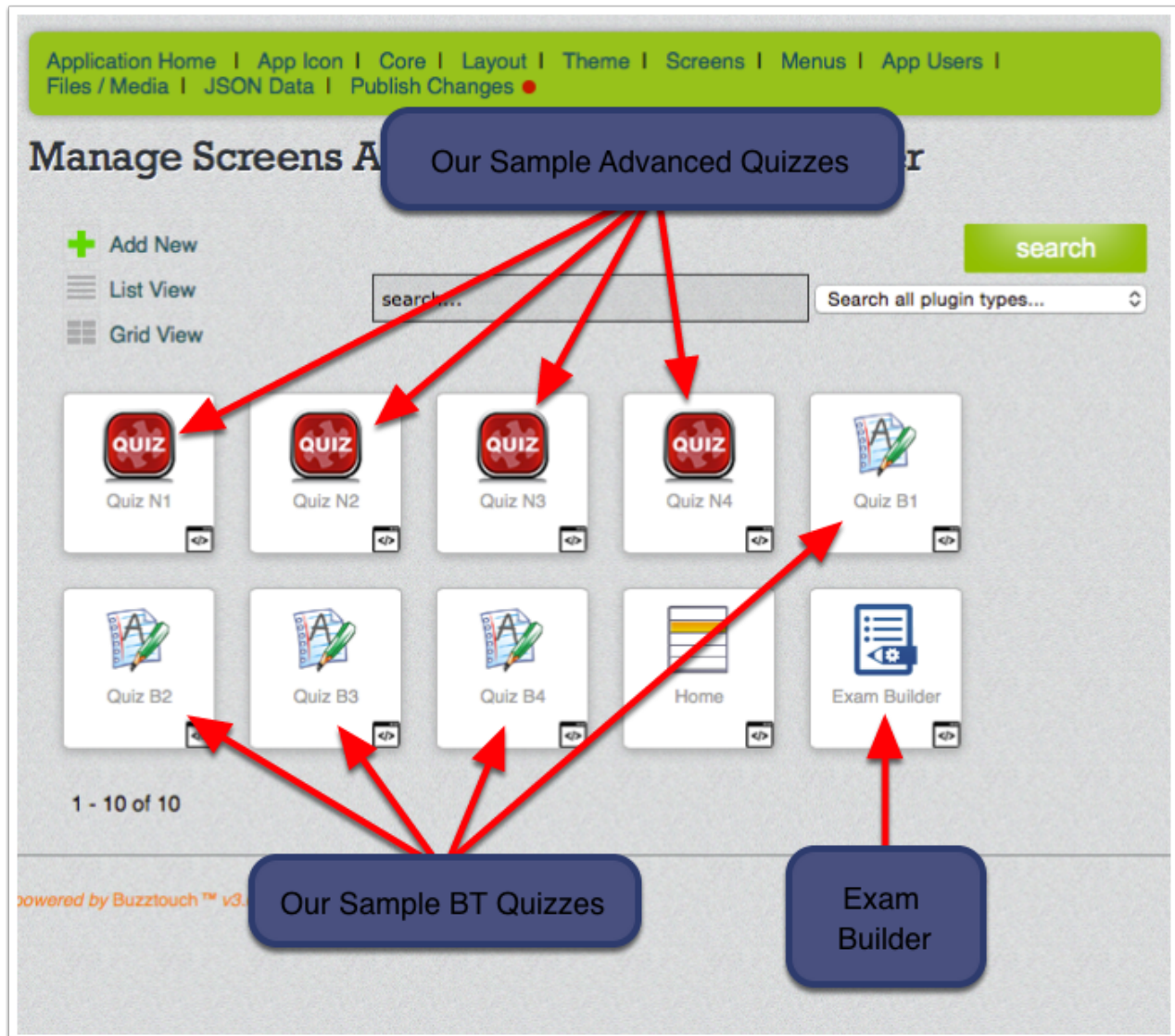
A) The Smug Exam Builder plugin manages all the Quiz options for you. You do not need to create a separate quiz screen, but you do need to make sure when you download your project that one of the two supported quiz plugins is ticked as one of the plugins to be included in your project.

Typical Setup

In most scenarios, you will 'augment' an existing Quiz app with a Smug Exam Builder. The end user would learn content and questions via the quiz, and test their ability with random selected questions in the Exam.



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Take Advantage of the Configurability of the Quizzes...

Regardless of using the BT Quiz or Nad's Advanced Quiz, you're going to want to use all of the options available to you. Background Colors, Fonts, Buttons, the works. No Problem. the Smug Exam Builder will 'pass through' the options that you provide for either quiz plugin. Just configure the Exam Builder the same way you configure your quiz plugins. If you're familiar with JSON, you can save a lot of steps by configuring one quiz, and copy/pasting the pertinent JSON in the other quiz 'JSON Configuration Data' section of the Quiz Plugin.

BT Quiz Options	Nad Quiz Options
Screen Nickname	Screen Nickname
Top Navigation Bar	Top Navigation Bar
Screen Background Color	Number of Answers (Global)
Screen Background Image	Question and Answer Bank
Menu Items	Quiz Behavior
Screen Data URL	Button Background Properties
Quiz Scoring, Finish Options	Explanation Screen Properties
Quiz Behavior, Layout	Game Center Properties(iOS only)
Quiz Send Results to URL	Share Score Via Email(iOS only)
Require Login	Send Score to Facebook(iOS only)
Hide from Search Results	Send Score to Twitter(iOS only)
Tab Bar	Send Score to Android(Android only)
JSON Configuration Data (Editable)	Screen Data Advanced
IMPORTANT <ul style="list-style-type: none">Do not modify this JSON data unless you know what you are doingDo not change the itemId or the itemTypeDo not paste arrays in this JSONValidate your entries with this JSON <pre>{ "itemId": "F1A878D8F5AD96", "itemType": "BT_screen_quiz", "itemNickname": "Quiz B1", "navBarTitleText": "Quiz", "backgroundColor": "#FF6666", "cacheWebImages": "1", "quizShowCorrectAnswers": "1", "quizSoundEffectFileName": "quiz_sound_effect.mp3"}</pre>	Landing Screen Properties
	Font Properties
	Quiz Sounds
	Background Properties
	Advertising Options



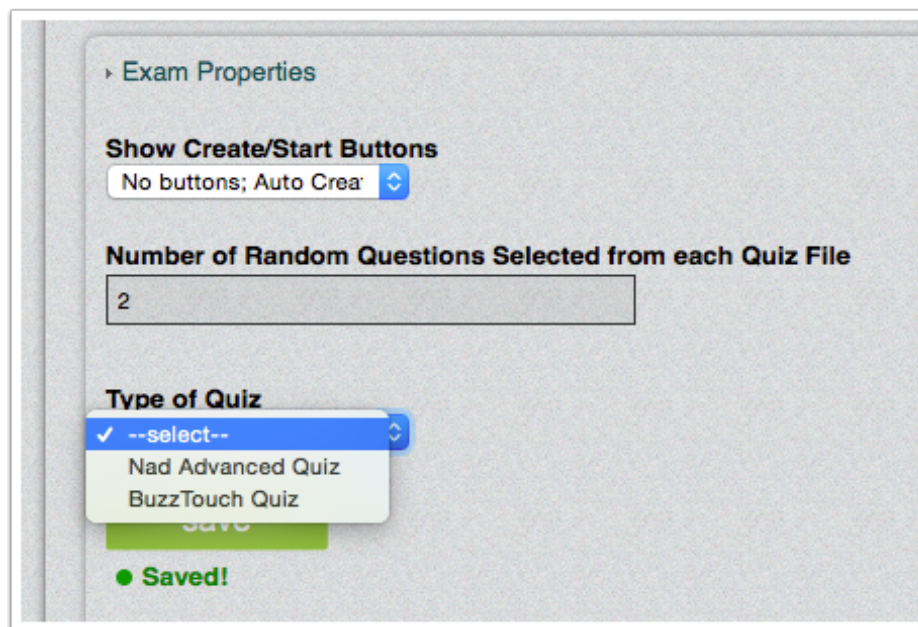
Configuring the Smug Exam Builder

This is really the only 'unique' configuration needs for the Smug Side of the Plugin. All other options are pertinent to the 'type' of quiz you're going to use; BT or NAD.

Therefore, You must decide which quiz engine you want to use. The Smug Exam Builder can accomodate both, and you make your selection using the drop down box provided.

Other options include 'Nike' mode where, once the plugin is 'active' it creates and starts the exam without user interaction. If Buttons are set to 'show', the user must press the button twice; once to create the exam, and once again to start the exam.

Also included is the 'global' number of random questions selected from the pool. You have an option to 'override' this value in each question pool, which will be discussed later.





Number of Random Questions from a Pool

Here is the logic:

- 1) When reading a pool of questions, it checks to see how many random questions it should take from the pool child Item json. If not present, it
- 2) checks to see what the 'global' setting is. If also blank, the default is '1'. I mean, you gotta have something.

If your pool has fewer questions than the random number, the random number is reduced to match the number of questions. In other words, if you configure the plugin to pick '7' random questions from a file, and the file only has '6' questions, then only 6 question will be provided. The Exam Builder does not allow duplicate questions in an exam (from the same file).



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Exam Properties

Show Create/Start Buttons

Number of Random Questions Selected from each Quiz File

Type of Quiz

Exam Source Files

Here is where you list the 'source' files for your exam questions. Each 'should' correlate to an existing quiz

Friendly Name	Exam Source File	# Questions
Used to select internal child Items from other quiz screens		
Friendly Name	Source File Name Select	# of Questions
<input type="text" value="My Electronic Questions"/>	<input type="text" value="myElectronicQuestions.txt"/>	<input type="text" value="4"/>



Adding your Quiz Pool Files to the Configuration

Adding Pool files are the same as any other childItem. Add a 'Friendly Name' for you, the developer, to understand the quiz question file content, the 'Exam Source File' filename, or dataURL of the file. Alternatively, you can 'select' the quiz if the childItems are internal to the project. It keeps the screen ID hidden, but we use that to grab the right questions from the right quiz.

You can also designate a quantity of random questions to be pulled from the pool. If left blank, the global number is used.

The screenshot shows the configuration interface for the Smug's Exam Builder Plugin. It features a table with columns: Friendly Name, Exam Source File, # Questions, and Row Number... Each row represents a quiz pool. Annotations with red arrows point to specific elements:

- dataURL for childItems/quiz pool:** Points to the 'Exam Source File' column for B3 Quiz Questions.
- Internal ChildItems, from Quiz:** Points to the 'Exam Source File' column for B1 Quiz Questions.
- External ChildItem file, bundled with the app:** Points to the 'Exam Source File' column for B2 Quiz Questions.
- Used to select ChildItems from Internal Quizzes. Otherwise type in your bundled filename or dataURL:** Points to the 'File Name' dropdown menu.
- Different Questions from each pool, allowing a 10 question Exam:** Points to the '# Questions' column for B3 and B4 Quiz Questions.

Friendly Name	Exam Source File	# Questions	Row Number...	
B1 Quiz Questions	Quiz B1	2		refresh
B2 Quiz Questions	b2.txt	2		delete
B3 Quiz Questions	http://www.yourserver.com/b3.txt	3		delete
B4 Quiz Questions	http://www.yourserver.com/b4.txt	3	4	delete

Buttons: update, add

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Configure your Exam using properties for the intended Quiz itemType

You'll be pleased to see that depending on 'which' Quiz type you use, the Smug Exam Builder Control Panel options will display only the properties of the Quiz Engine you will use.

The Smug Exam Engine tailors the properties available to the type of Quiz 'Engine' chosen; Nad or BT

Exam Properties

Show Create/Save Buttons
No buttons; Auto Save

Number of Random Questions Selected from each Quiz
2

Type of Quiz
BuzzTouch Quiz

save

Exam Source Files

Screen Data URL

Background Properties

Quiz Scoring, Finish Options

Quiz Behavior, Layout

Quiz Send Results to URL

Advertising Options

Hide from Search Results

Require Login

Tab Bar

JSON Configuration Data (Editable)

IMPORTANT

- Do not modify this JSON data unless you know what you are doing.
- Do not change the itemId or the itemType in this JSON.
- Do not paste arrays in this JSON (such as child items).
- Validate your entries with this [JSON Validator](#) tool.

```
{
  "itemId": "81C6E03946B3D67AC7376AE",
  "itemType": "SW_examBuilder",
  "name": "Exam Builder",
  "description": "Exam Builder",
  "version": "1.0",
  "author": "SmugWimp",
  "copyright": "2014",
  "license": "MIT",
  "url": "http://smugwimp.com",
  "email": "info@smugwimp.com",
  "phone": "555-555-5555",
  "address": "123 Main St, Anytown, USA",
  "keywords": "exam, builder, quiz, smugwimp",
  "tags": "exam, builder, quiz, smugwimp",
  "category": "Education",
  "subcategory": "Exam Builder",
  "parent": null,
  "children": []
}
```

Exam Properties

Show Create/Save Buttons
Buttons

Number of Random Questions Selected from each Quiz
2

Type of Quiz
Nad Advanced Quiz

save

Exam Source Files

Screen Data URL

Background Properties

Number of Answers (Global)

Quiz Behavior

Button Background Properties

Explanation Screen Properties

Game Center Properties(iOS only)

Share Score Via Email(iOS only)

Send Score to Facebook(iOS only)

Send Score to Twitter(iOS only)

Send Score to Android(Android only)

Landing Screen Properties

Font Properties



Testing testing testing...

As with any technology, you can't master it if you don't play with it. Although the 'Smug' options are few, the Quiz options are many. Adding in the additional property values adds a distinct appearance to your Quiz/Exam. Be sure to populate all of the options available to you.

And if you have questions, please do not be shy; post your question on the Buzztouch forum so that all may benefit from the discussion.

Cheers!

-- Smug