A2J Author®
Advanced Conditions & Repeat Loops

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A2J Author®

Advanced Conditions
Question Design – Conditions

1. Overview of Conditions
2. Condition Operators
3. Condition Syntax
4. A2J Author Demonstration
5. Additional Resources
Overview of Conditions

- Conditions are basically if-then statements
- Conditions evaluate a scenario and apply an action accordingly
- Two possible actions
  1. Go to a question
  2. Set variable value
- Press the “+” (plus) button to add a condition
Overview of Conditions

- **Conditions**: lists all condition statements for question
- **Event**: when to test for the condition: “After user presses button” or “Before question is displayed”
- **Condition**: what to evaluate
- **Actions**: what to do if a condition is met
Overview of Conditions

- Conditions are tested in the order they are listed
- You can have up to 50 conditions per question
- Warning: If a condition is found to be true, the action is to move to another question, the rest of the following conditions will not be tested
Overview of Conditions

- If tested “Before question is displayed” + the condition evaluated is true + the action is to move to another question = the question will not be displayed
- If tested “After user presses button” the question is always shown
Overview of Conditions

- Can have multiple Actions based on one Condition
- I.e. this condition evaluates whether [Income NU] >35000 and has 3 possible Actions
Condition Operators

An operator is used to compare variables and data in conditions.

Variables can be evaluated in a condition using a variety of operators.

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Comparison</th>
<th>Example</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>=</td>
<td>equals</td>
<td>10 = 10</td>
<td>True</td>
</tr>
<tr>
<td>&lt;&gt;</td>
<td>not equal</td>
<td>10 &lt;&gt; 10</td>
<td>False</td>
</tr>
<tr>
<td>&gt;</td>
<td>greater than</td>
<td>10 &gt; 5</td>
<td>True</td>
</tr>
<tr>
<td>&lt;</td>
<td>less than</td>
<td>10 &lt; 5</td>
<td>False</td>
</tr>
<tr>
<td>&gt;=</td>
<td>greater than or equal to</td>
<td>10 &gt;= 10</td>
<td>True</td>
</tr>
<tr>
<td>&lt;=</td>
<td>less than or equal to</td>
<td>10 &lt;= 10</td>
<td>True</td>
</tr>
<tr>
<td>is</td>
<td>synonym for equals</td>
<td>City is &quot;Chicago&quot;</td>
<td>true if the City variable contains Chicago</td>
</tr>
</tbody>
</table>
Condition Syntax

- Variable names must be enclosed in brackets like this: [Income NU]
- Can have a space or no space around the operator
Condition Syntax

- Can use “and” and “or” logic in conditions

- If evaluating the same variable, must have two complete expressions with “and” or “or” in between like this: [Income NU]<35000 and [Income NU]>25000

  *not* like this: [Income NU]<35000 and >25000
Condition Syntax

- Can do simple mathematical expressions like this:
  - \([\text{Income NU}]-10000<35000\)
- Can use built in A2J Author functions to evaluate data like this:
  - \(\text{AGE(}[\text{User birthday DA}])\geq18\)
    - Note: AGE converts a birthday into years; this evaluates whether the user is 18 years or older
  - When using functions, (wrap) the function around the variable or expression you want it applied to, like this:
    - \(\text{DATE(TODAY+90)}\)
      - Note: DATE converts days into a date; this gives the date 90 days from today
Additional Resources

- Chapter 7: Creating Questions
  - Advanced Tab Details: page 109-113
  - List of Functions: page 114
  - Links to online Tutorials for Functions: page 115
- Online Authoring Guide at www.a2jauthor.org
  - Interview Questions > Tutorials > The Advanced Tab
    - Includes tutorial on the Advanced Tab and tutorials on each Function
A2J Author®

Repeat Loops
What is a Repeat Dialog?

A “Repeat Dialog” or “Repeat Loop” is a series of questions that will display to the end-user multiple times based upon user input.

Use a repeat loop if the same type of information needs to be collected several times, asset names and values, instead of creating the questions over and over.

There are two ways to make a repeat loop in A2J Author, both have the same outcome:

1. Collect the number of items/people first
2. Ask if there are any more items/people at the end
Repeat Dialog (Loops)

Agenda

1. Repeat Loop Collecting Number First
2. Repeat Loop Asking to Add More at End
3. Variables in a Repeat Dialog
4. Additional Resources
Collecting Number First

If the end-user will know how many times they need to go through the loop, ask the number up front.
For example, people (hopefully) always know how many children they have.
Collecting Number First

Steps to create a Repeat by collecting the number first:

**Step 1:** Create the set of questions that will repeat

**Step 2:** Create a counting variable – the counting variable keeps track of how many times the user has gone through the set of questions; should be a “number” on Variables tab
Collecting Number First

**Step 3:** First question should ask “how many…”
It is the first question of the Repeat Dialog but will not be part of the questions repeated to the end-user.

**Step 4:** On the question asking “how many,” “Set the counting variable to 1” in the “Options” field on the Buttons tab.
Collecting Number First

**Step 5:** Identify the counting variable in the “Counting Variable” field on the Question tab of every question to be repeated.

**Do not** identify the counting variable on the Question tab of the question asking “how many” because that question should not repeat.
Collecting Number First

Question asking “how many” not identified to repeat

Questions identified to repeat
Collecting Number First

**Step 6:** On the last question to be repeated, “Increment Counting Variable” in the “Options” field on the Buttons tab.

When the user presses the “Continue” button on this question the counting variable number will increase by 1.
Collecting Number First

**Step 7:** Create a condition on the advanced tab of the last question to be repeated to compare the number held by the counting variable to the number (of items/people) given first.
Collecting Number First

**Step 7:** Ask whether the number held by the counting variable is greater than or equal to the number given by the end-user

- If false, end-user is sent back to the first question of the repeating set of questions.
- If true, end-user is moved out of the repeat loop to the next non-repeated question.
Repeat Dialog (Loops)

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Asking to Add More at End

If the end-user likely will not know how many times they need to go through the loop, ask if they want to add another at the end. For example, people might not know exactly how many assets worth more than $100 they have, but they could start a list here.
Asking to Add More at End

Steps to create a Repeat by asking to add more at the end:

**Step 1:** Create the set of questions that will repeat

**Step 2:** Create a counting variable – the counting variable keeps track of how many times the user has gone through the set of questions; should be a “number” on Variables tab
Asking to Add More at End

**Step 3:** Create a question that leads into the loop but is not part of the loop. On that question, “Set the counting variable to 1” in the “Options” field on the Buttons tab.
**Asking to Add More at End**

**Step 4:** Identify the counting variable in the “Counting Variable” field on the Question tab of every question to be repeated.

**Do not** identify the counting variable on the Question tab of the question leading into the loop and sets the counting variable to 1.
Asking to Add More at End

Question leading into the loop and sets the counting variable to 1 not identified to repeat

Questions identified to repeat
Asking to Add More at End

Step 5: The last question to be repeated, should ask if the end-user would like to add any more.

On the Buttons tab, set the “Yes” button to “Increment Counting Variable” in the “Options” field & set the “Destination Question” to go back to the first of the repeating questions.
Asking to Add More at End

**Step 5:** The last question to be repeated, should ask if the end-user would like to add any more.

On the Buttons tab, set the “No” button to move the end-user out of the loop to the next non-repeated question.
Repeat Dialog (Loops)

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Variables in a Repeat Dialog

Variables in repeated questions are set up as normal.
Variables in a Repeat Dialog

The only difference is the question is identified as part of a repeat dialog by including a Counting Variable.
Variables in a Repeat Dialog

Variables in repeated questions will be marked to collect “Multiple Values” on the Variables tab and Variable Information box.
Variables in a Repeat Dialog

To hold multiple values, A2J Author appends a pound sign and the loop number to the end of the variable name, creating new variables each time through the loop.

For example:
[Child first name TE] becomes
[Child first name TE#1]
[Child first name TE#2]
Variables in a Repeat Dialog

%%[Variable name TE]%%

Shows all values gathered for one variable through repeat loop, with commas and “and” separating them.
Variables in a Repeat Dialog

%%[Variable name TE#1]%%

Shows the value gathered for a variable on the first time through the repeat loop.
Variables in a Repeat Dialog

%%[Variable name TE#CountingVariable]%%

Shows the value of the variable according to which round of the loop the current question is displaying information for.
Variables in a Repeat Dialog

`%%ORDINAL([CountingVariable])%%`

Shows the words “first,” “second,” etc. according to which round of the loop the current question is displaying information for.

What is the name of the third child?

First: 
Middle: 
Last: 

Continue
Repeat Dialog (Loops)

Agenda

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Additional Resources

- **A2J Authoring Guide**
  - Chapter 7 Creating Questions – Pgs. 116-122 Writing Repeat Dialogs
  - Chapter 5 Variables Tab – Pg. 40 Repeat
  - Chapter 5 Variables Tab – Pgs. 46-47 Variable Macros

- **Online A2J Authoring Guide on www.a2jauthor.org**
  - Interview Questions – Tutorials – Creating Questions – Repeating Questions
  - Interview Questions – Modules – Repeating Dialogs (Loops)
  - Variables – Modules – Variable Macros

- **Trainings & Presentations on www.a2jauthor.org**
  - Recorded trainings & presentations of various topics
Questions? Feedback?

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