



The Center for
Access to Justice & Technology
AT CHICAGO-KENT COLLEGE OF LAW

A2J Author®

Advanced User Forum

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Nested Repeat Loops

Before We Get Started

- ▶ All attendees are on mute. Please raise your hand to ask questions.
- ▶ If you are listening in without a microphone, ask your questions in the question box.
- ▶ If you are calling in, please enter your audio pin to be heard.
- ▶ This session is being recorded and will be posted on the A2J Author YouTube Channel.



Agenda

- Repeat Loops in A2J & HotDocs – the problem
- The Solution
- Creating the A2J Guided Interview
- The HotDocs component
- Questions



The Problem

- HotDocs Explicit Indexing: two-digit
 - Ex. Child first name TE [1]
 - Child city TE [1,1]
- A2J's Explicit Indexing: one indexing or counting variable at a time
 - Ex. Child first name TE [1]
 - Child City TE [1]



The Solution: A Work Around

A2J Counter Variable	Corresponding HotDocs Variable	Purpose
OutsideCount	ParentCtr NU	Tracks outside or parent loops
InsideCount	ChildCtr NU	Tracks inside or child loops
AbsoluteCount	ExplIndex NU	Unique index for each answer in the child loops
Array size NU	Array size NU	Maximum number of answers in any child loop
ICap NU	ICap NU	Total iterations in any given child loop



Child Loop Variables

Unlike most interviews, the HotDocs variables for the inner or child loops are not going to be used in the A2J Guided Interview.

Instead, we will create distinct A2J variables and HotDocs variables for the inner loops.

A HotDocs computation will parse and map the A2J variables to the corresponding HotDocs variables to simulate explicit indexing.



The A2J Component

The screenshot shows the 'Question Design Window' for an A2J component. The window is divided into several sections:

- Question:** A tab for editing the question content.
- Fields:** A section for defining input fields, currently empty.
- Buttons:** A section for defining buttons, with a 'Continue' button visible.
- Advanced:** A section for defining advanced logic, currently selected.

The 'Advanced' section contains the following configuration:

- Conditions:** A list of four 'AFTER' actions:
 - #1 AFTER: true IF TRUE THEN SET OutsideCount=1
 - #2 AFTER: true IF TRUE THEN SET InsideCount=1
 - #3 AFTER: true IF TRUE THEN SET Array size NU=10
 - #4 AFTER: true IF TRUE THEN SET A2J repeat trigger TF=true
- Event:** After user presses button
- Condition:** true
- Actions:** A list of one 'IF' action:
 - #1 IF TRUE THEN SET OutsideCount=1
- If:** True
- Action:** set variable to value
- Variable:** OutsideCount
- Value:** 1
- Notes:** (Empty text area)

At the bottom of the window are buttons for 'XML', 'Preview', and 'Close'. On the right side, there are two informational panels:

- Thumbnail:** A panel with a question icon and text explaining the question's role in a nested repeat loop and the logic to be set up.
- Design Notes:** A panel with a note: 'Make sure to check out the advanced tab!' and a 'Continue' button.



The A2J Component

Question Design Window

Question ▶

Fields

First:
Middle:
Last:

Buttons

Continue

Advanced

Step: 1. THE LOOPS

Name: 2-Name

B I P Audio:

Question Text: What is the name of your %%ORDINAL([OutsideCount])%% child?

Learn More:

Question Help: B I P Audio:

Text

Text Reader Tag:

Counting Variable:

The A2J Component

The screenshot displays the 'Question Design Window' interface. On the left sidebar, there are three main sections: 'Question', 'Fields', and 'Buttons'. The 'Question' section is currently selected. The 'Fields' section contains input fields for 'First:', 'Middle:', and 'Last:', with the 'Last:' field highlighted. The 'Buttons' section contains a 'Continue' button. At the bottom of the sidebar is an 'Advanced' button with a right-pointing arrow.

The main workspace is divided into several sections:

- Conditions:** A list of conditions is shown, with two entries:
 - #1 AFTER: true IF TRUE THEN SET Add inside repeat TF=true
 - #2 AFTER: true IF TRUE THEN SET AbsoluteCount=[OutsideCount]*[Array size NUJ]+1
- Event:** A dropdown menu is set to 'After user presses button'.
- Condition:** A text input field contains the value 'true'.
- Actions:** A list of actions is shown, with one entry:
 - #1 IF TRUE THEN SET Add inside repeat TF=true
- If:** A dropdown menu is set to 'True'.
- Action:** A dropdown menu is set to 'set variable to value'.
- Variable:** A dropdown menu is set to 'Add inside repeat TF'.
- Value:** A text input field contains the value 'true'.
- Notes:** An empty text area for additional notes.



The A2J Component

Question Design Window

Question ▶

Fields

City:

Buttons




List Another

Move On

Advanced




Step: 1. THE LOOPS

Name: 3-Child Address

B I  P Audio:  

Question Text: Please enter a city %%[Child name first TE#OutsideCount]%% has lived in the past two years.

Learn More:

Question B I  P Audio:  

Help:

Text

Text Reader Tag:

Counting Variable: AbsoluteCount



The A2J Component

Question Design Window

Question

Fields

City:

Buttons

List Another

Move On

Advanced ▶

Conditions:

```
#1 AFTER: [Add inside repeat TF#AbsoluteCount]=true AND [InsideCount]<=[Array size NU] IF TRUE THEN SET InsideCount=[AbsoluteC  
#2 AFTER: [Add inside repeat TF#AbsoluteCount]=true AND [InsideCount]<=[Array size NU] IF TRUE THEN SET AbsoluteCount=Absolute  
#3 AFTER: [Add inside repeat TF#AbsoluteCount]=true AND [InsideCount]>[Array size NU] IF TRUE THEN SET ICap NU#OutsideCount=In  
#4 AFTER: [Add inside repeat TF#AbsoluteCount]=true AND [InsideCount]>[Array size NU] IF TRUE THEN GOTO (2)1- Oops  
#5 AFTER: [Add inside repeat TF#AbsoluteCount]=false IF TRUE THEN SET ICap NU#OutsideCount=InsideCount
```

Event: After user presses button

Condition: [Add inside repeat TF#AbsoluteCount]=true AND [InsideCount]<=[Array size NU]

Actions:

```
#1 IF TRUE THEN SET InsideCount=[AbsoluteCount]-([Array size NU]*[OutsideCount])+1
```

If: True Action: set variable to value Variable: InsideCount

Value: [AbsoluteCount]-([Array size NU]*[OutsideCount])+1

Notes: Increments InsideCount



The Advanced Tab Broken Down

	Condition	Action	Explanation
1	[Add inside repeat TF#AbsoluteCount] = true AND InsideCount<= [Array size NU]	IF TRUE THEN SET InsideCount=[AbsoluteCount]-[Array size NU]*[OutsideCount]+1	Increments InsideCount if InsideCount is less than or equal to Array size NU.
2	[Add inside repeat TF#AbsoluteCount]=true AND [InsideCount]<=[Array size NU]	IF TRUE THEN SET AbsoluteCount=AbsoluteCount + 1	Increments AbsoluteCount if InsideCount is less than or equal to Array size NU
3	[Add inside repeat TF#AbsoluteCount]=true AND [InsideCount]>[Array size NU]	IF TRUE THEN SET ICap NU#OutsideCount=InsideCount	Sets the Iteration Cap counter (ICap NU) for this outer loop to the value of InsideCount if InsideCount is greater than Array size NU
4	[Add inside repeat TF#AbsoluteCount]=true AND [InsideCount]>[Array size NU]	IF TRUE THEN GOTO (2)1-Oops!	Moves to the error message if the user tries to enter an 11 th city.
5	[Add inside repeat TF#AbsoluteCount]=false	IF TRUE THEN SET ICap NU#OutsideCount= InsideCount	If Move On is selected, locks the Iteration cap (ICap NU) for the outer loop to the value of InsideCount, which is not incremented.

The Two Most Important Buttons

Question Design Window

Question

Fields

City:

Label: List Another

Save the user's button choice (optional):

Variable: Add inside repeat TF

Value: true

Destination Question: (1)3-Child Address :Please enter a cit

Options: Normal

Buttons

- List Another
- Move On

List Another Button

Question Design Window

Question

Fields

City:

Label: Move On

Save the user's button choice (optional):

Variable: Add inside repeat TF

Value: false

Destination Question: (1)5- Add Another Chid? :Do you want

Options: Normal

Buttons

- List Another
- Move On

Move On Button

The HotDocs Component

```
«IF ANSWERED(A2J repeat trigger TF) AND A2J repeat trigger TF» «Child loop variables parser CO» «END IF»
```

```
«REPEAT Parent or Outer Loop»
```

```
«Child name first TE» has lived in:
```

```
    «REPEAT Child or Inner Loop»
```

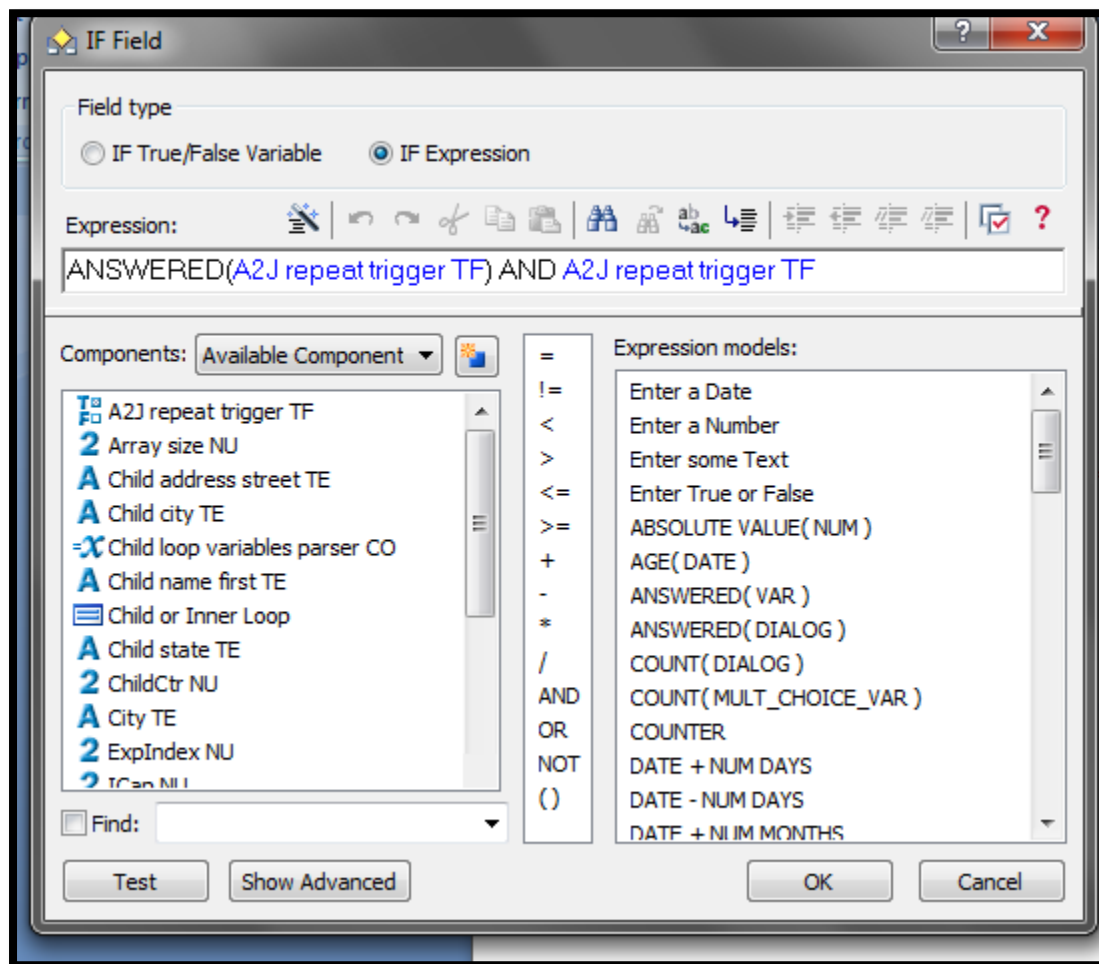
```
        «City TE»
```

```
    «END REPEAT»
```

```
«END REPEAT»
```



The HotDocs Component



The HotDocs Component

Variable Field

Variable type

Text True/False Personal Information

Number Multiple Choice

Date Computation

Variable: Child loop variables parser CO

Merge field properties

Format: Non-breaking Use defaults

Field width: Align answer: Fill character:

Unanswered text:

Font:

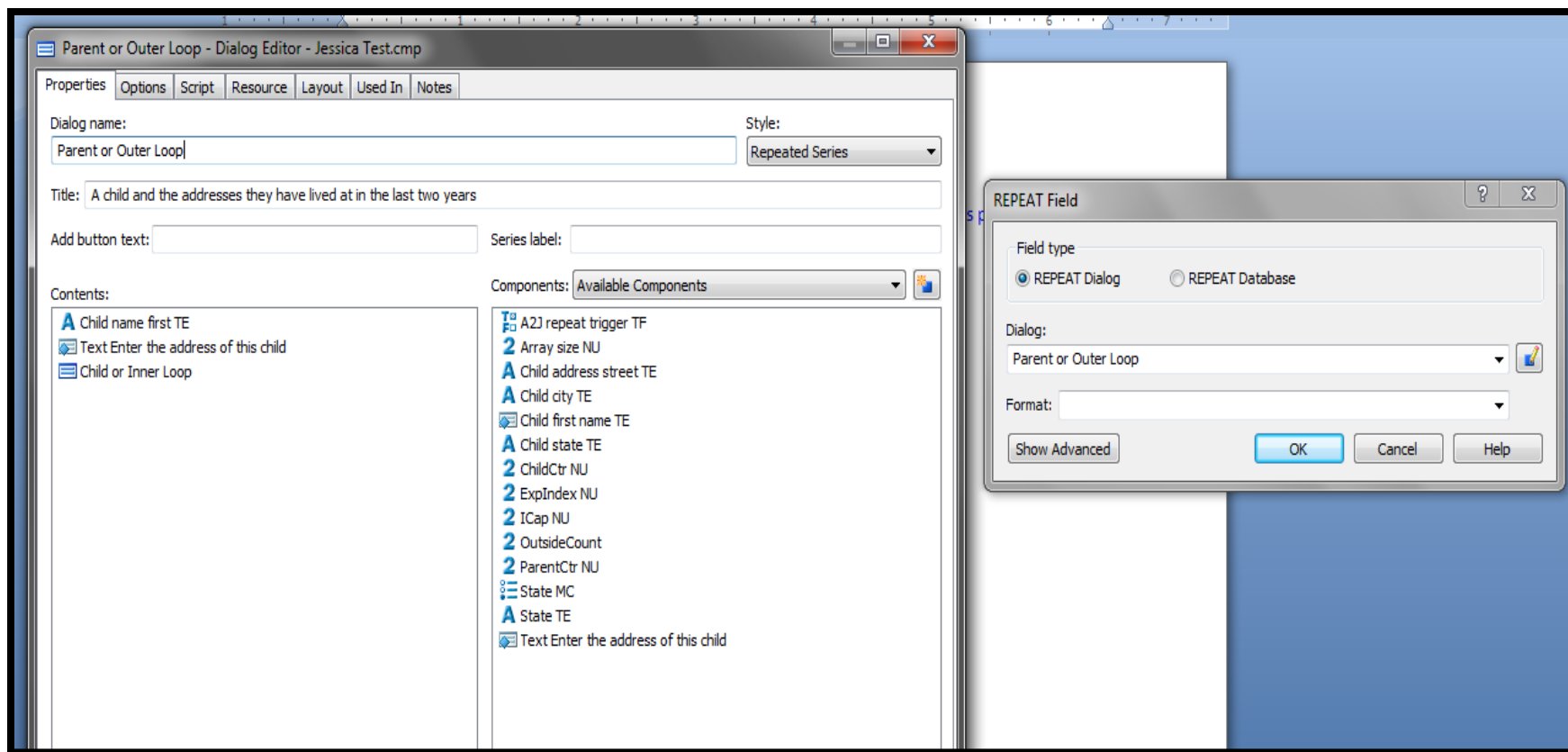
Comment:

Hide Advanced OK Cancel

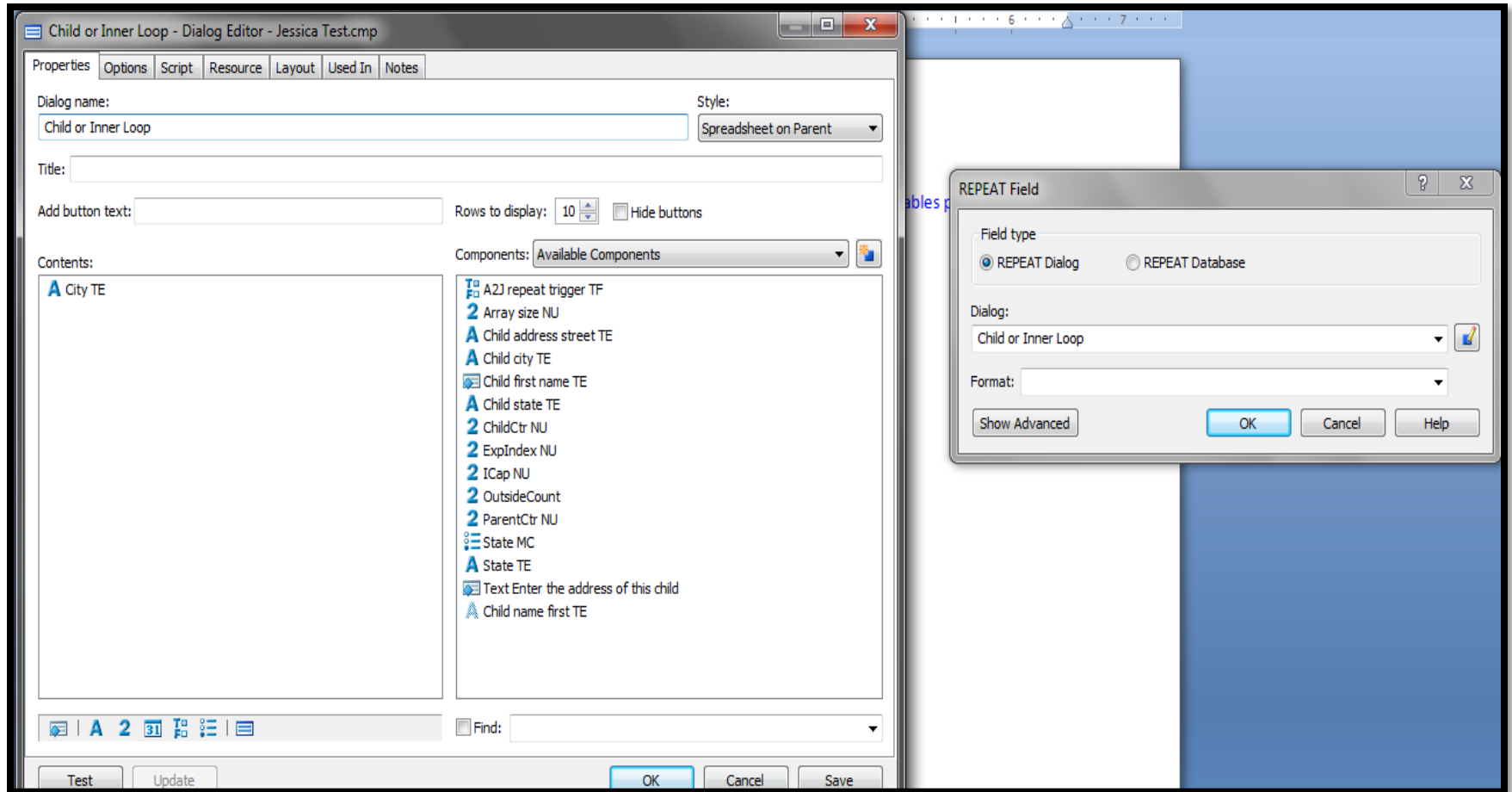
```
SET ParentCtr NU TO 1
SET ChildCtr NU TO 1
SET ExplIndex NU TO ( ParentCtr NU * Array size
NU) + 1
WHILE ParentCtr NU <= OutsideCount
WHILE ChildCtr NU <= ICap NU[ ParentCtr NU]
SET City TE[ParentCtr NU, ChildCtr NU] TO
Child city TE[ExplIndex NU]
SET State TE[ParentCtr NU, ChildCtr NU] TO
Child state TE[ExplIndex NU]
INCREMENT ExplIndex NU
INCREMENT ChildCtr NU
END WHILE
INCREMENT ParentCtr NU
SET ChildCtr NU TO 1
SET ExplIndex NU TO (ParentCtr NU * Array size
NU) +1
END WHILE
```



The HotDocs Component



The HotDocs Component





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Questions or Feedback?

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Thank You!

**The Center for Computer-Assisted Legal
Instruction (“CALI”) for the GotoMeeting
Services!**



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