

Expressions in Blaise 5 Resource Editor

Nikki Brown and Yelena Beale, Westat, United States

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Agenda

Expressions



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Overview of Expressions

Definition of Expression

- › “An expression is a content aware combination of explicit values, constants, variables, operators, and functions that are interpreted and evaluated at runtime to produce a value. With expressions you can change colors of active controls, set visibility of controls and many things more.” - Blaise Help File

Where to learn about Expressions

- › Expression documentation can be found in the Blaise Help File
- › Expressions exist in the default templates that come in the Resource Editor
- › Expressions can also be found in the default templates of the Blaise 5 Samples

Examples of Expressions

Show Text Button

The screenshot shows a web application window titled "Dining Out Chicago". At the top, there is a navigation bar with several buttons: "DK", "NA", "Previous Page", "FirstPage", "Show Error", and "Save Form". Below this, a second row of buttons includes "RF", "Show Text" (circled in red), "Next Page", "Last Page", "Show All Errors", and "Save & Close".

On the left side, there is a sidebar menu with the following items: "About You", "Eating Out", "Rate Server", "Rate Food", "Rate Restaurant", and "Negative Experience".

The main content area is titled "Tell Us About You..." and contains a form with the following fields:

- Email**:
- MaritalStatus**:
- City**:
- Income**:
- Gender**:
- Job**:
- Age**:
- JobSpec_01**:

At the bottom of the form area, there are two navigation arrows: a left arrow and a right arrow.

Result of Show Text Click

Dining Out Chicago

DK NA Previous Page FirstPage Show Error Save Form
RF Hide Text Next Page Last Page Show All Errors Save & Close

About You
Eating Out
Rate Server
Rate Food
Rate Restaurant
Negative Experience

Tell Us About You...

EMAIL MaritalStatus
City Income
Gender Job
Age JobSpec_01

Question Text:
What is your gender?
 Male DK Not Ascertained
 Female RF

◀ ▶

Server Variable 'ShowText' default 'False'

The screenshot displays the configuration for a button in a web application. The button is labeled "Datamodel Title Text" and has several navigation links: DK, NA, Previous Page, FirstPage, Show Error, Save Form, RF, Show Text, Next Page, Last Page, Show All, and Save & Close. The "OnClick" event is configured with a collection of actions. The "Conditional" property is set to "False". The "OnClick" event is configured with a condition: `ServerVariables.GetBoolean('ShowText') = False`.

Properties:

- Button
- OnClick: (Collection) ...

Actions:

- Conditional
- CurrentPage

Properties:

- Condition: False
- ThenBranch: ProcedureCall ...
- ElseBranch: ProcedureCall ...

Condition: Boolean

`ServerVariables.GetBoolean('ShowText') = False`

Functions

Click event is raised when the button is clicked

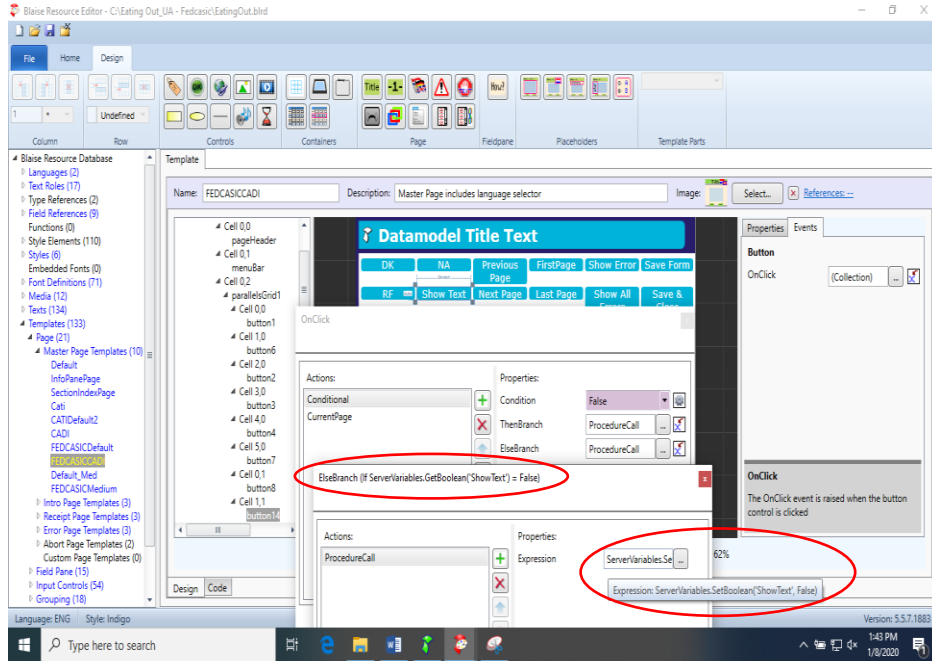
Setting Server Variable to 'True' in the Then Branch

The screenshot shows the Blaise Resource Editor interface. The main window displays a template configuration for 'FEDCASICCADI'. The 'Description' is 'Master Page includes language selector'. The 'OnClick' event is configured with the following properties:

- Condition: False
- ThenBranch: If ServerVariables.GetBoolean('ShowText') = False (circled in red)
- ElseBranch: ProcedureCall
- Expression: ServerVariables.SetBoolean('ShowText', True) (circled in red)

The 'OnClick' event is also described as: 'The OnClick event is raised when the button control is clicked'.

Setting Server Variable to 'False' in the Else Branch



Use Server Variable to Select Text for Display on Button

The screenshot shows a web development environment with a button and a RichText field. The button's text is 'Show Text'. The RichText field contains the following code:

```
IF ServerVariables.GetBoolean('ShowText') = True THEN  
  'Hide Text'  
ELSE  
  'Show Text'  
ENDIF
```

The code is circled in red, as is the button's text 'Show Text' in the properties window.

Use Server Variable to Toggle Off and On the Visibility of Grid

The screenshot displays a software interface with a grid and a properties panel. The grid contains a question text field. The properties panel shows the 'Visibility' property set to 'Collapsed'. A red circle highlights the 'Visibility' property in the properties panel and the corresponding code in the 'Constructs' panel.

```
IF ServerVariables.GetBoolean('ShowText') = True THEN  
  'Visible'  
ELSE  
  'Collapsed'  
ENDIF
```

Use Server Variable to Change Background and Font Colors

DK	NA	Previous Page	FirstPage	Hide Error
RF	Show Text	Next Page	Last Page	Show All Errors

About You

Tell Us About You...

Eating Out

Rate Server

Rate Food

Rate Restaurant

Negative Experience

EMail

City

Gender
Answer required

Age

MaritalStatus

Income

Job

JobSpec_01

Optional Layout Image 4 – Please do not modify photos

DK	NA	Previous Page	FirstPage	Show Error
RF	Show Text	Next Page	Last Page	Show All Errors

- About You
- Eating Out
- Rate Server
- Rate Food
- Rate Restaurant
- Negative Experience

Tell Us About You...

EMail	<input type="text"/>	MaritalStatus	3
City	1	Income	6
Gender	1	Job	12

Using 'Section.IsActive' Condition For Section Header Background Color

Master Page Templates (10)

- Default
- InfoPanePage
- SectionIndexPage
- Cati
- CATIDefault2
- CADI
- FEDCASICDefault
- FEDCASICCADI
- Default_Med
- FEDCASICMedium

Intro Page Templates (3)

Receipt Page Templates (3)

Error Page Templates (3)

Abort Page Templates (2)

Custom Page Templates (0)

Field Pane (15)

Input Controls (54)

Grouping (18)

Table Headers (18)

Page Area (7)

- Language Templates (1)
- Parallel Templates (1)
- Index Item Templates (5)
 - Nested
 - Default
 - Text

Name: DefaultEdit Description: Index button

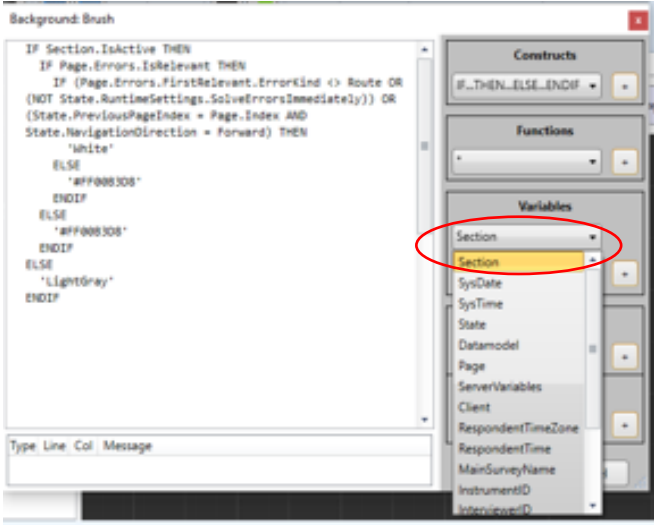
IndexItem Template

- Cell 0,0
 - grid1
 - Cell 0,0
 - sectionButton1

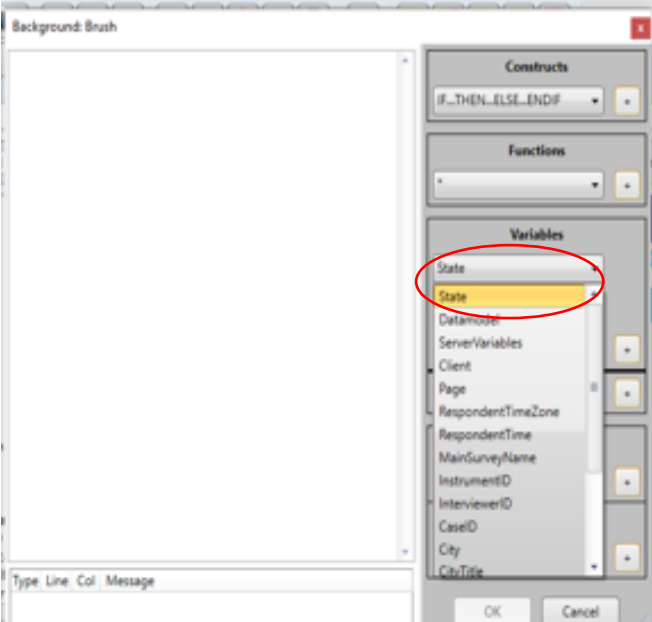
Background: Brush

```
IF Section.IsActive THEN
  IF Page.Errors.IsRelevant THEN
    IF (Page.Errors.FirstRelevant.ErrorKind <> Route OR
      (NOT State.RuntimeSettings.SolveErrorsImmediately)) OR
      (State.PreviousPageIndex = Page.Index AND
      State.NavigationDirection = Forward) THEN
      'White'
    ELSE
      '#FF00B3D8'
    ENDIF
  ELSE
    '#FF00B3D8'
  ENDIF
ELSE
  'LightGray'
ENDIF
```

Index Template 'Section' Variable at Top of List




Vertical Template 'State' Variable at Top of List



Error in Vertical Template

Background: Brush

```
IF Section.IsActive THEN
  IF Page.Errors.IsRelevant THEN
    IF (Page.Errors.FirstRelevant.ErrorKind <> Route
OR (NOT
State.RuntimeSettings.SolveErrorsImmediately)) OR
(State.PreviousPageIndex = Page.Index AND
State.NavigationDirection = Forward) THEN
      'White'
    ELSE
      '#FF00B3D8'
    ENDIF
  ELSE
    '#FF00B3D8'
  ENDIF
ELSE
  'LightGray'
ENDIF
```

Type	Line	Col	Message
			Condition not valid:Variable Section not found

NA Attribute Assignment

The screenshot displays a software interface for configuring a button. At the top, a blue header bar contains the text "Datamodel Title Text". Below this, a navigation bar includes buttons for "DK", "NA", "Previous Page", "FirstPage", "Show Error", and "Save Form". The "NA" button is circled in red. Below the navigation bar, the "OnClick" event handler is configured. The "Actions" section lists "AssignField" (with a green plus icon) and "CurrentPage" (with a red X icon). The "Properties" section shows "FieldName" with a dropdown menu and "ValueAsString" with a text input field containing "NA". Below the properties, the "FieldName" is set to "String", and the "ValueAsString" is set to "State.ActiveFieldName", which is also circled in red. A "Constructs" dropdown menu is visible at the bottom right, showing "IF...THEN...ELSE...ENDIF".

Setting Text of Next Button to Submit

The screenshot displays a software development interface. At the top, a red banner contains the text "minutes. Please click Continue to" followed by a "Continue" button. Below this, a progress bar shows 75% completion. The main area is divided into a code editor and a properties window. The code editor contains the following code:

```
IF Page.Index = State.MaxPageIndex THEN  
  '<text key=txtSubmit>  
ELSE  
  '<text key=txtNext>  
ENDIF
```

The properties window on the right shows the following settings:

- ShowKeyboardFocus: True
- TabIndex: 0
- Text: '<text key=txtN...'

Below the properties window, there are sections for "Constructs" and "Functions". The "Constructs" section has a dropdown menu with "IF...THEN...ELSE...ENDIF" selected. The "Functions" section has a dropdown menu with "*" selected.

Field References

- Field References (18)

- RespondentTimeZone

- RespondentTime

- MainSurveyName

- InstrumentID

- InterviewerID

- CaseID

- PageTitle

- AuxStartDate

- CAWIModeSubmitDate

- CAWIModeSubmitTime

- CAWIStatus

Assigning Mapped Fields Using a Conditional

OnClick

Actions:	Properties:
Conditional	Condition: False
Conditional	ThenBranch: AssignField
ThenBranch (If State.MaxPageIndex = Page.Index)	

Actions:	Properties:
AssignField	FieldName: CAWIModeSubmitTime
	ValueAsString: 18:37:7

ValueAsString: String

```
TOSTRING(SYSTIME.Hour) + ':' + TOSTRING(SYSTIME.Minute) + ':' + TOSTRING(SYSTIME.Second)
```

Constructs

IF...THEN...ELSE...ENDIF

Conclusion

- › Expression are a useful tool
- › Helpful samples exist
- › Don't forget to add variables to Field References and then Map them
- › Don't reinvent the wheel – Share

Expressions in Blaise 5 Resource Editor

- › Thank you
- › Any Questions?