



ENTRINSICON
LEVEL UP!

September 26th-29th, 2023
Raleigh, NC

Introduction to Calculated Columns

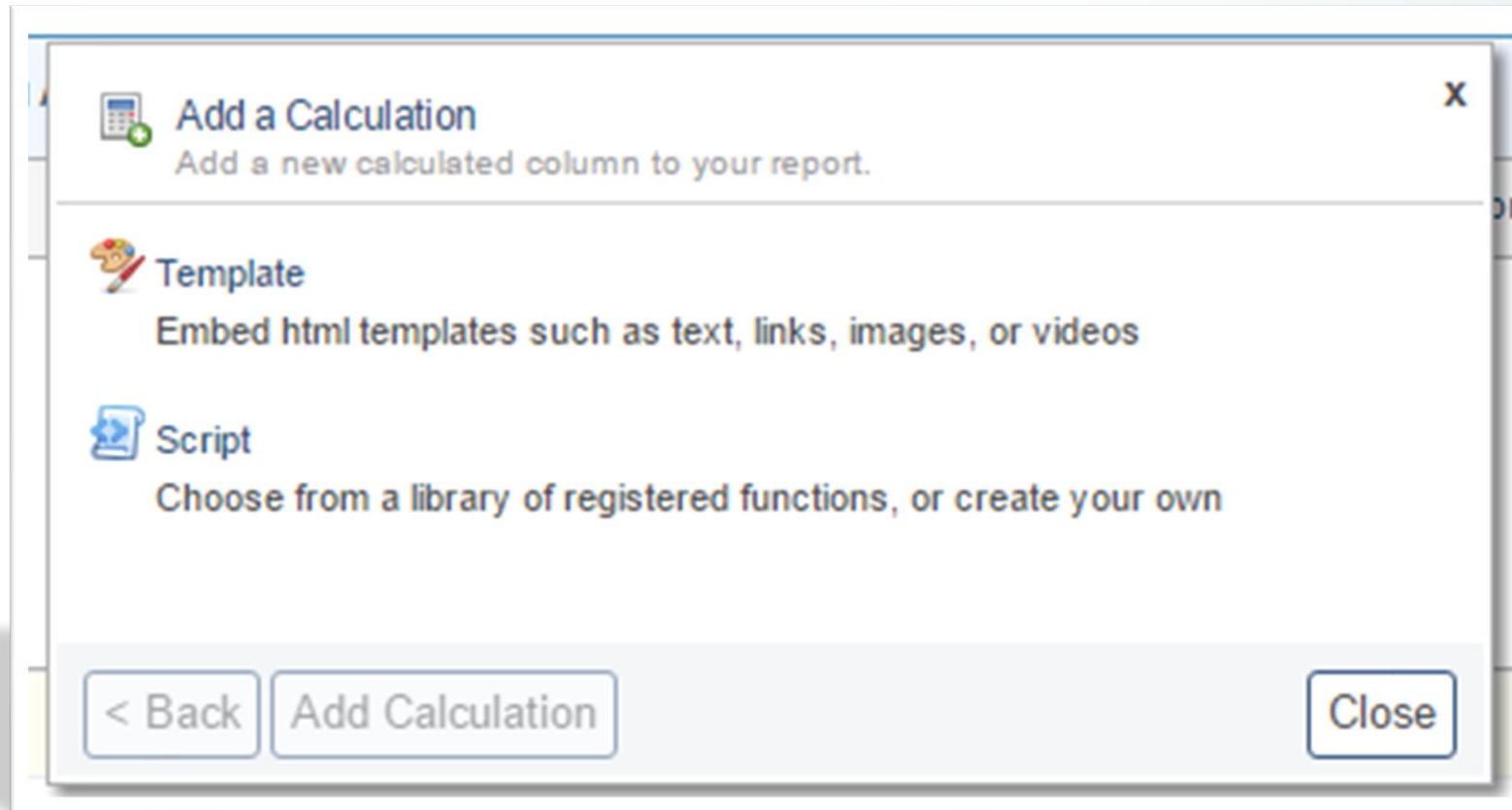
Variables, Conditionals, and String
Manipulation

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Agenda

- 1 Template vs. Script
- 2 Objects and Variables
- 3 Template Examples
- 4 JavaScript Concepts
- 5 Script Examples

Creating a Calculated Column



Template v. Script

Templates

- Written with plain text or HTML
- Used for formatting pre-existing data


Scripts

- Written with JavaScript
- Used for manipulating the data in some way

Template Concatenation

First Name	Last Name
Pascale	Cartrain
Liz	Nixon
Liu	Wong
Karin	Josephs
Miguel	Angel Paolino
Anabela	Domingues
Helvetius	Nagy
Palle	Ibsen
Mary	Saveley
Paul	Henriot

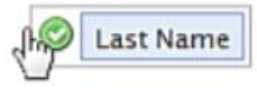


 **New Template Column** x

Embed html templates such as text, links, images, or videos

Header
Full Name

Expression
\${first_name}



< Back Add Calculation Close

Template Concatenation

Drag and Drop into the Expression Box

```
${firstName} ${lastName}
```

Creates:

First Name	Last Name	Contact Name
Pascale	Cartrain	Pascale Cartrain
Liz	Nixon	Liz Nixon
Liu	Wong	Liu Wong
Karin	Josephs	Karin Josephs

JavaScript Concepts- Objects and Variables

What is an Object?

Objects have a certain data type

Similar data types interact with one another

JavaScript Concepts – Objects and Variables

Data Type	Example
Numeric	1037, 0, 0.05, -157
String	'Hello!' "", '5'
Boolean	True, False
Date	12/25/2000, 7-26-1990
Multi-value	['one', 'two', 'three']

JavaScript Concepts – Arithmetic Operators

Operator	Function
=	Assign value
+	Addition / Concatenation
-	Subtraction
*	Multiplication
/	Division
%	Modulo (Remainder)

JavaScript Concepts – Conditionals

Used when you want an output to change based off the value of something else

Two types

- If/Else statement
- Switch statement

JavaScript Concepts – Conditionals

Operator	Function
==	Is equal to
!=	Is not equal to
>	Is greater than
<	Is less than
>=	Is greater than or equal to
<=	Is less than or equal to
&&	And
	Or
!	Not

JavaScript Concepts – Conditionals

If Statement	Switch Statement
<pre>if (condition) { statement; } else if (condition2) { statement; } else { statement; }</pre>	<pre>switch (n) { case value1: statement; break; case value2: statement; break; default: statement; }</pre>


Script #1 – Seats Available

Class ID	Max Capacity	Students Enrolled	Seats Available
10643	20	17	3
10692	35	16	19
10702	50	40	10
10835	30	13	17
10952	20	12	8
11011	25	7	18
10308	40	31	9
10625	30	24	6

Script #1 – Seats Available

Subtract the two columns from one another

Column Display Editor

OK	Apply	Cancel	Remove
Column Header *	<input type="text" value="Seats Available"/>		
Alias	<input type="text" value="seatsAvailable"/>		
Type	Script		
Expression	<input type="text" value="maxCapacity-studentsEnrolled"/> 		

Script #2 – Color Coding

Class ID	Max Capacity	Students Enrolled	Seats Available	Low Seat Warning
10643	35	18	17	Seats Available
10692	25	1	24	Seats Available
10702	25	16	9	Running out of seats!
10835	40	31	9	Running out of seats!
10952	35	29	6	Running out of seats!
11011	50	49	1	Critically Low Seating!
10308	55	48	7	Running out of seats!

Script #2 – Color Coding

Assign HTML styling based on some condition

Expression

```
if(seatsAvailable<5){  
  "<div style='color:red'>Critically Low Seating!</div>";  
}  
else if(seatsAvailable<10){  
  "<div style='color:orange'>Running out of seats!</div>";  
}  
else{  
  "<div style='color:green'>Seats Available</div>";  
}
```



String Manipulation

String types have special functions that work with all strings

```
string.function()
```

String Manipulation

`length`

`concat()`

`substr()`

`toUpperCase()`

`toLowerCase()`

`trim()`

`indexOf()`

Script #3 – String Manipulation

First Name	Last Name	Username	Contact Name
Pascale	Cartrain	pcartrain	Pascale Cartrain
Liz	Nixon	lnixon	Liz Nixon
Liu	Wong	lwong	Liu Wong
Karin	Josephs	kjosephs	Karin Josephs
Miguel	Angel Paolino	mpaolino	Miguel Angel Paolino
Anabela	Domingues	adomingues	Anabela Domingues
Helvetius	Nagy	hnagy	Helvetius Nagy

Script #3 – String Manipulation

Don't forget edge cases

Multiple ways to accomplish the same thing

Expression

```
var firstInitial = firstName.substr(0,1)
var firstInitialLower = firstInitial.toLowerCase();

var lastLower = lastName.toLowerCase();

if(lastLower.indexOf(" ") > -1){
  firstInitialLower + lastLower.substring(lastLower.indexOf(" ")+1, lastLower.length);
}
else{
  firstInitialLower + lastLower
}

//firstInitialLower.concat(lastLower)
```

Resources

HTML

- http://www.w3schools.com/html/html_examples.asp

JavaScript

- http://www.w3schools.com/js/js_examples.asp

CSS (styles)

- http://www.w3schools.com/css/css_examples.asp



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Q & A



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Thank You