



#### **Elements**

Element	Description	Closing Element
< <name>&gt;</name>	Replace this field by the data referenced by "name".	3 2 2 2
<<{expr}>>	Replace this field with the results of the given expression.	
< <li>&lt;<li>ink:name&gt;&gt;</li></li>	Insert a hyperlink at this location, using the URL from the data referenced	
< <li>&lt;<li>name&gt;&gt;</li></li>	by "name". The data can optionally specify display text by using the form: <text> <url></url></text>	
<<\$abc=name>>	Lookup the data associated with "name" and assign it to the variable "abc".	
<==10.2>>	Assign the number 10.2 to variable \$abc	
	Assign the string "Fred" to variable \$abc	
< <pre>&lt;&lt;\$abc='Fred'&gt;&gt;</pre>	Assign the boolean true to variable \$abc	
<<\$abc=true>>	Assign the value null to variable \$abc	
< <pre>&lt;&lt;\$abc=null&gt;&gt; &lt;&lt;\$abc&gt;&gt;</pre>	Lockup the veriable "abe" and render its value	
· ·	Lookup the variable "abc" and render its value	//og namo\\
<cs_name>&gt; <cs {expr}="">&gt;</cs></cs_name>	Content between the opening element and the closing element is included or excluded depending on the value associated with "name" or the	< <es_name>&gt; &lt;<es {expr}="">&gt;</es></es_name>
< <cs \$abc="">&gt;</cs>	expression "expr" or the variable "abc". The end tag must match exactly, or	< <es_\{abc}></es_\{abc}>
<u> </u>	may be anonymous: < <es_>&gt;.</es_>	< <es_>&gt;</es_>
< <else_name>&gt;</else_name>	This is the "else" tag related to a < <cs>&gt; tag to provide the "else" and</cs>	
< <else_{expr}>&gt;</else_{expr}>	"else if" options to a condition.	
< <else>&gt;</else>		
< <rs_name>&gt;</rs_name>	Content between the opening element and closing element is repeated	< <es_name>&gt;</es_name>
< <rs_\$abc>&gt;</rs_\$abc>	whilst there is data associated with "name" or the variable "abc".	< <es_\$abc>&gt; &lt;<es name:step2="">&gt;</es></es_\$abc>
< <rs_name:step2>&gt;</rs_name:step2>	"stepN" indicates that the data ("name") should be iterated in steps of N size. When stepping is used, the variables \$i1, \$i2,\$iN are created automatically so you can reference the items available in each step.	< <es_>&gt;</es_>
< <rs_name:step2down>&gt;</rs_name:step2down>	"stepNdown" indicates that the data ("name") should be iterated in steps of N size and data should be presented in a "down"-ward manner. Variables \$i1, \$i2, \$iN are created automatically.	
< <cr_name>&gt;</cr_name>	Include the following table rows depending on the value associated with	< <er_name>&gt;</er_name>
< <cr_{expr}>&gt;</cr_{expr}>	"name" or expression "expr" or the variable "abc".	< <er_{expr}>&gt;</er_{expr}>
< <cr_\$abc>&gt;</cr_\$abc>		< <er_\$abc>&gt;</er_\$abc>
< <rr name="">&gt;</rr>	The course had a constitution of the constitut	< <er_>&gt; &gt;</er_>
<rr \$abc="">&gt;</rr>	The rows between the opening element row and the closing element row are repeated whilst there is data associated with "name" or the variable	< <er \$abc="">&gt;</er>
	"abc".	< <er_>&gt;</er_>
< <rr_name:step2>&gt;</rr_name:step2>	"stepN" indicates that the data ("name") should be iterated in steps of N size. When stepping is used, the variables \$i1, \$i2,\$iN are created automatically so you can reference the items available in each step.	_
< <rr_name:step2down>&gt;</rr_name:step2down>	"stepNdown" indicates that the data ("name") should be iterated in steps of N size and data should be presented in a "down"-ward manner. Variables \$i1, \$i2, \$iN are created automatically.	
< <notablerowalternate>&gt;</notablerowalternate>	Disable automatic alternate-colouring of table rows. This can appear in a table to disable for the table or appear in the document body to disable for all following tables.	
< <cc_name>&gt;</cc_name>	Include or exclude the table column containing this field depending on the	
<cc_{expr}>&gt; <cc \$abc="">&gt;</cc></cc_{expr}>	value associated with "name" or the expression "expr" or the variable "abc".	
Image < <img_< td=""><td>Replace an image in the template with the image data associated with "name" using the default scaling settings (which is stretch).</td><td></td></img_<>	Replace an image in the template with the image data associated with "name" using the default scaling settings (which is stretch).	
MS Word: bookmarked	The default setting can be changed by setting the docmosis property:	
with label "img_name" OpenOffice or	docmosis.analyzer.image.scaling.default to fit or stretch.	
LibreOffice Writer: image named "img_name"	See the Docmosis Developer's Reference for information about setting properties.	
(deprecated "bm_name")		



# **Quick Reference v4.1**

Element	Description	Closing Element
<pre>Image &lt;<imgstrech_ "imgstretch_name"<="" bookmarked="" label="" named="" or="" pre="" with=""></imgstrech_></pre>	Replace an image in the template with the image data associated with "name" and stretch the new image to match the template image placeholder.	
<pre>Image &lt;<imgfit_ "imgfit_name"<="" bookmarked="" label="" named="" or="" pre="" with=""></imgfit_></pre>	Replace an image in the template with the image data associated with "name" and fit the new image into the template image placeholder preserving the new image aspect ratio.	
< <ref:sub1.doc>&gt;</ref:sub1.doc>	Insert the template named "sub1.doc" at this location.	
< <reflookup:name>&gt;</reflookup:name>	Lookup "name" in the data to get the name of the template to insert at this location.	
< <html:name>&gt;</html:name>	Lookup "name" in the data and inject the data as HTML content into the document at this location	
< <barcode:name:>&gt;</barcode:name:>	Provide information for a barcode image in the template.	
	eg. < <bar>barcode:barcode1:code128&gt;&gt; defines image "barcode1" as a code 128 barcode.</bar>	

#### **Expression Operators**

Operator	Description
(	open parentheses
)	close parentheses
+	addition (for numbers and strings)
-	subtraction
*	multiplication
	division
%	modulus
+	unary plus
-	unary minus
=	equal (for numbers and strings)
==	equal (for numbers and strings)
!=	not equal (for numbers and strings)
<	less than (for numbers and strings)
<=	less than or equal (for numbers and strings)
>	greater than (for numbers and strings)
>=	greater than or equal (for numbers and strings)
&&	boolean and
	boolean or
ļ į	boolean not





### **Example Expressions**

Element	Description
<<{10 * 3.0}>>	Calculate 10 multiplied by 3.0
<<{amount * qty}>>	Lookup data elements "amount" and "qty" and multiply them together.
<<{round(item/10)}>>	Lookup data element "item", divide it by 10 then round the result.
< <cs_{a<10}>&gt;</cs_{a<10}>	Lookup data element "a" and see if it is <b>less than</b> 10 numerically. If "a" is not numeric, a string comparison is performed automatically.
< <cs_{a='fred'}>&gt;</cs_{a='fred'}>	Lookup data element "a" and see if it is <b>equal to</b> the String literal "fred".
< <cs_{\$a!=10}>&gt;</cs_{\$a!=10}>	Lookup the variable "a" and see if it is <b>not equal to</b> the numeric value 10. If variable "a" does not resolve to a numeric value, a String comparison is performed.
< <cs_{a=null}>&gt;</cs_{a=null}>	Lookup the data element "a" and determine if it's value is null
< <cs_{\$a}>&gt;</cs_{\$a}>	Determine if the value of the template variable \$a is true

### **General Functions and String Functions**

Functions	Example
map	<<{map(gender, `M', 'Male', `F', `Female', `Other')}>>
charAt	<<{charAt('abcdefg',3)}>> returns the character "d"
endsWith	<<{endsWith('The first string', 'ing')}>> returns the value "true"
equalsIgnoreCase	<<{equalsIgnoreCase ('Bob', 'bob')}>> returns the value "true"
length	<<{length('Bob')}>> returns the number "3.0"
replace	<<{replace('JHMAB52EC800650','0','0')}>> returns "JHMAB52EC800650"
split	<<{split(`John Mathews 47 Approved' , ' ' , 1)}>> returns "Mathews"
startsWith	<<{startsWith('The first string', 'The')}>> returns the value "true"
substring	<<{substring('0123456' , 2 , 5)}>> returns "234"
titleCase	<<{ titleCase ('bob mathews')}>> returns "Bob Mathews"
toLowerCase	<<{toLowerCase('Bob Mathews')}>> returns "bob mathews"
toUpperCase	<<{toUpperCase('Bob Mathews')}>> returns "BOB MATHEWS"
trim	<<{trim(' 12CVCV123-454 ')}>> returns "12CVCV123-454"
toAlpha	<<{toAlpha(1)}>> returns "a". <<{toAlpha(28)}>> returns "bb"
toAlpha2	<<{toAlpha2(1)}>> returns "a". <<{toAlpha2(28)}>> returns "ab"
toRoman	<>{toRoman(1)}>> returns "i". <<{toRoman(28)}>> returns "xxviii"





#### **Numeric Functions**

Functions	Example
abs	<<{abs(-153.57)}>> returns "153.57"
ceil	<<{ceil(153.57)}>> returns "154.0"
floor	<<{floor(153.57)}>> returns "153.0"
max	<<{max(53.5,23.1)}>> returns "53.5"
min	<<{min(53.5,23.1)}>> returns "23.1"
pow	<<{pow(7,2)}>> returns "49.0"
random	<>{round(random()*100)}>> returns a random number between 0 and 100.
round	<<{round(153.73455,2)}>> returns "153.73"
sqrt	<<{sqrt(81.0)}>> returns "9.0"

## **Formatting Functions**

Functions	Example
numFormat	<>{numFormat(`1457.1', `#,###.00' )}>> returns ``1,457.10"
dateFormat	<>{dateFormat('2015-12-15' , 'EEEE, dd MMMM yyyy' , 'yyyy-MM-dd')}>> returns "Tuesday, 15 December 2015"

### Ranges

Element	Description
< <hotel[0]>&gt;</hotel[0]>	The first hotel (indexing starts at zero)
< <hotel[f]>&gt;</hotel[f]>	The first hotel (equivalent to index zero)
< <hotel[l]>&gt;</hotel[l]>	The last hotel
< <hotel[*]>&gt;</hotel[*]>	All hotels
< <hotel[f3]>&gt;</hotel[f3]>	The first 3 hotels
< <hotel[l3]>&gt;</hotel[l3]>	The Last 3 hotels
< <hotel[1,2,4]>&gt;</hotel[1,2,4]>	The hotels at indexes 1,2 and 4
< <hotel[1-3,l2]>&gt;</hotel[1-3,l2]>	The hotels at indexes 1 to 3 inclusive and the last 2
< <hotel[0-l2]>&gt;</hotel[0-l2]>	All but the last 2 hotels
< <hotel[3].floor[l].room[ 0].name="">&gt;</hotel[3].floor[l].room[>	The name of the first room of the last floor of the hotel at index 3





#### **Built-in Variables**

Variable	Description
<<\$top>> or <<\$root>>	The root of the data regardless of the current position or context in the template
<<\$this>> or <<\$current>>	The current source of data in the current position in the template. This allows for anonymous data lookups from arrays or collections such as <<\$current[0]>>.
<<\$parent>>	The parent or container of data in the current context of the template. Allows data lookup in the current "hotel" when the current context is a "floor" for example.
<<\$idx>>	The current index when iterating through a data set. For example, if we are repeating over all hotels, \$idx would report the index of the hotel we are up to. Note that <<\$rowidx>> is the same unless using a step size greater than 1.
<<\$itemnum>>	Similar to \$idx but is the number of the item which we are currently addressing. Item numbering starts at 1. Note that <<\$rownum>> is the same unless using a step size greater than 1.
<<\$size>>	The size of the current repeating data set. For example if we are repeating over all hotels, \$size would be the number of hotels.
<<\$i1>>, <<\$i2>>,<<\$iN>>	References to the Nth item when repeating data in "steps of N". For example < <rs_people:step3>&gt; steps through the people in "steps of 3" and Docmosis automatically creates variables \$i1, \$i2 and \$i3 to access each element in the step.</rs_people:step3>
<<\$idx1>>,<<\$idx2>>,<<\$idxN>>	The absolute indexes of the items when repeating with "steps of N" (as described above) starting at zero.
< <pre>&lt;&lt;\$itemnum1&gt;&gt;,&lt;&lt;\$itemnum2 &gt;&gt;, &lt;&lt;\$itemnumN&gt;&gt;</pre>	The absolute indexes of the items when repeating with "steps of N" (as described above) starting at one.
<<\$rownum>>	The current row number (starting at 1) when repeating (either repeating rows or repeating sections). This is most useful when using the "stepping" directives and the \$itemnum is not suitable.
<<\$rowidx>>	The current row number (starting at 0) when repeating (either repeating rows or repeating sections). This is most useful when using the "stepping" directives and the \$idx is not suitable.