Microsoft Office Excel worksheet (XLSX)

Multi-Line Statements in *XLSX*

All multi-line directives such as #if, #else, #elseif, #foreach, and #macro must be used under the following conditions.

The beginning and ending statements must be declared within a single cell. Figure 1 and Figure 2 below show samples of invalid usage of the **#if** and **#foreach** statements between cells respectively.

	A	B
1	#if($e.elementType == "usecase")	
2	$e.name	
3	#end	
4		

Figure 1: How to execute multiline statements.

	A	B	C	D	E
1					
2		**Use Case**			
3		#foreach($uc in $UseCase)	$uc.name	#end	
4					

Figure 2: Invalid usage of foreach statements.

In Figure 1, since the body of the #if statement ($e.name) resides in the A2 cell, not in the A1 cell, the body will not be generated when generating a report, regardless of the evaluation of the #if statement. The code shown in Figure 2 will break the structure of a spreadsheet document.

Figure 3 and Figure 4 demonstrate samples of valid usage of the #if and #foreach statements respectively.

	A	B
1	#if($e.elementType == "usecase")$e.name#end	
2		

Figure 3: Valid usage of an if statement.

	A	B	C
1			
2		**Use Case**	
3		#foreach($uc in $UseCase) $uc.name #end	
4			

Figure 4: Valid usage of a foreach statement.

- A VTL Macro must be declared within a single cell. Do not insert the multi-cell recorded macros in a single cell, see figure below.

	A	B	C
1			
2		**Macro**	
3		#macro(insertCell $e)	
4		#if($e=="red")$e.name	
5		#else $e.name	
6		#end	
7		#end	
8			
9		**Use Macro**	
10		#foreach($e in $elements)	
11		#insertCell($e)	
12		#end	
13			

Figure 5: Invalid usage of a VTL Macro.

The macro will copy all contents between #macro and #end. Cells and rows will be included in the macro as well. Once this record has been inserted, the macro content will break the document structure.

Figure 6 demonstrates a sample of valid usage of the #macro statement.

	A	B	C
1			
2		**Macro**	
3		#macro(insert $e) #if($e=="red") $e.name #else $e.name #end #end	
4			
5		**Use Macro**	
6		#foreach($e in $elements) #insertCell($e) #end	
7			

Figure 6: Valid usage of a VTL Macro

Creating data for multiple rows

The **#foreach** directive can only be used in a single cell record. To create data for multiple rows, use the **#forrow** directive instead (Figure 7).

	A	B	C	D
1	#forrow($uc in $UseCase)	$uc.name	#endrow	
2				

Figure 7: The forrow directive.

Fiogure 8 demonstrates the output of the above code.

	A	B	C
1		Use Case A	
2		Use Case B	
3		Use Case C	
4		Use Case D	
5			

Figure 8: Results of running the code from figure 7.

Creating data for multiple columns

#forcol is used for creating data for multiple columns (Figure 9). This statement can be used in conjunction with the **#forrow** statement.

	A	B
1	#forcol($uc in $UseCase)$us.name#endcol	
2		

Figure 9: The forcol directive.

Figure 10 demonstrates the output of the above code.

	A	B	C	D	E
1	Use Case A	Use Case B	Use Case C	Use Case E	
2					

Figure 10: Results of running the code from figure 9.

Displaying content in a cell

Texts in any generated report are always wrapped. Also, the cells' width in the generated report depends on the cells' width in the report template used. For example, an *XLSX* report template in Figure 11 will generate an output report as shown in Figure 12.

	A	B	C	D
1	#forrow($uc in $UseCase)	$uc.name	#endrow	
2				

Figure 11: The forrow directive

	A	B	C
1		this_is_usecase1	
2		this_is_usecase2	
3		this_is_usecase3	
4			

Figure 12: Results of running the code from figure 11.

Limitation when used in Microsoft Office Excel worksheet

You cannot use **#sectionBegin** and **#includeSection** in *XLSX*. If you try to use **#sectionBegin** or **#includeSection** in an *XLSX* report template (Figure 13) an error message will open (Figure 14).

	A	B
1		
2		
3		
4	#sectionBegin(SectionA)	
5		
6	This is section begin	
7		
8		
9	#sectionEnd	
10		

Figure 13: Invalid usage of a sectionBegin directive.

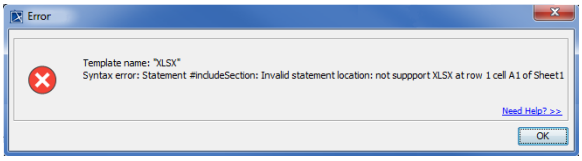

Figure 14: The error message from running the code in figure 13.