

Certificates of Analysis In Quality Window 5

Using MS Word or Excel



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1 - MS Word Certificate of Analysis Documents in Quality Window

A new macro called **Display_MSWORD_COA** is available to help in generating custom Certificate of Analysis documents, or basically any type of formatted document where information from a Quality Window application needs to be merged with the corresponding MS Word document. Once installed, the macro will appear under the Macros submenu of Quality Window.

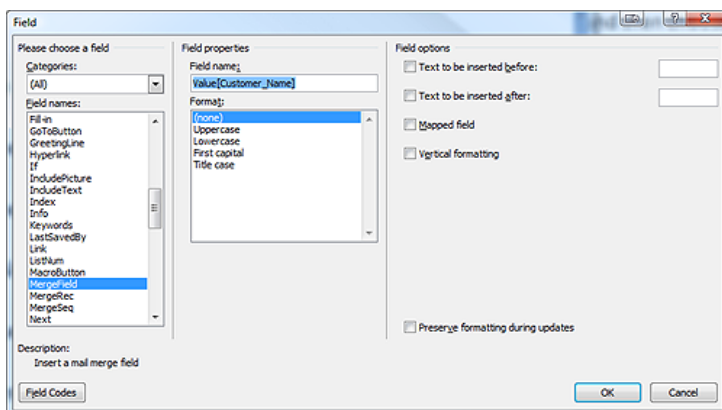
Preparing the MS Word Document

The user would start by designing the MS Word document, which could include logos, tables, signature areas, etc... and would allow for placeholders wherever data from Quality Window needs to be merged. Each location in the document where a field is to be placed can be done as follows:

In MS Word, click on the **Insert** tab, and then choose **Quick Parts**, and then choose **Fields**.



A dialog will appear where you can name the field. Under **Field Names**, select **MergeField**, and then enter a **Field Name**.



The Field Name has a special naming convention:

Prompt[Message]

This format will prompt the user at run time using the message specified, and the results to be inserted at this field location. If you have more than one prompt with the exact same message, it will only prompt once, and the other fields will be automatically filled in with the same result.

ie Prompt[Enter Customer Name]

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Value[QW_Variable_Name]

This format will insert the value of the QW variable specified, based on the current row selected on the Logsheet. The variable name must be an exact match to that specified in Quality Window. The variable must also be one that's included in the current View, if a View is being used. Note that if you change a variable name in your QW application, be sure to update your COA document.

ie Value[Batch_No]

Statistic[QW_Variable_Name]

This format will insert the summary statistic of all values currently in the Logsheet for the QW variable specified. The variable name must be an exact match to that specified in Quality Window. The variable must also be one that's included in the current View, if a View is being used. Note that if you change a variable name in your QW application, be sure to update your COA document. Also note that the statistics supported must be exact matches to the abbreviations used in Quality Window (which can be seen on the Control Chart screen or in QWSumStat). Some common examples are: Avg, N, USL, UCL, TGT, LCL, LSL, Cr, Tz, Cpk, V_Units, V_Category, etc...

ie Avg[Conveyor_Speed]

System[parameter]

This format will insert one of many supported system parameters, such as:

[Date:format] – display the current date in the specified format

System[Date:yyyy-mm-dd] returns 1993-01-27

System[Date:m/d/yy] returns 1/27/93

System[Date:dddd, mmmm dd, yyyy] returns Wednesday, January 27, 1993

[Time:format] – display the current time in the specified format

System[Time:hh:mm:ss] returns 17:18:15

System[Time:hh:mm:ss AM/PM] returns 05:18:15 PM

[QWFilename] – displays the current Quality Window filename

[QWViewName] – displays the current Quality Window View name

[QWTitle] – displays the current Quality Window application title

[ComputerName] – displays the workstation's computer name

[UserName] – displays the Windows logon name

Once all fields have been added to your document, it is time to save it. The script assumes that your document will be in the same folder as your QW data file. What you name your document is very important – if you have no View loaded, then the script will look for a document with the same name as the QW application; and if a View is loaded, then it will look for a document with the same name as the current View. As for File Type, the script supports both DOT and DOC variants (dotx, dotm, dot, docx,

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docm, doc) in that order. Using a template file can be advantageous in that the end users cannot overwrite the original document by mistake.

If no matching Word files are found, then a File Chooser dialog will be displayed and allow the user to select the document to use.

When it's time to generate a document, the end user would open their specific QW application, open a View if any filtering needs to be done, highlight a specific record if any 'Value' tags have been specified, and then click on **Macros -> Display_MSWORD_COA**. The script will then open your document in MS Word and begin to complete your document by filling in all of your fields. Note that fields are processed in a top-down fashion. Once complete, the user can then Save, Print or Email the document as needed.

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2 - MS Excel Certificate of Analysis Documents in Quality Window

A new macro called **Display_MSEXCEL_COA** is available to help in generating custom Certificate of Analysis documents, or basically any type of formatted document where information from a Quality Window application needs to be merged with the corresponding MS Excel document. Once installed, the macro will appear under the Macros submenu of Quality Window.

Preparing the MS Excel Document

The user would start by designing the MS Excel document, which could include logos, tables, signature areas, etc... and would allow for placeholders wherever data from Quality Window needs to be merged. Each location in the document where a field is to be placed can be done by simply typing into the appropriate cell with the following special naming convention:

Prompt[Message]

This format will prompt the user at run time using the message specified, and the results to be inserted at this cell location. If you have more than one prompt with the exact same message, it will only prompt once, and the other cells will be automatically filled in with the same result.

ie Prompt[Enter Customer Name]

Value[QW_Variable_Name]

This format will insert the value of the QW variable specified, based on the current row selected on the Logsheet. The variable name must be an exact match to that specified in Quality Window. The variable must also be one that's included in the current View, if a View is being used. Note that if you change a variable name in your QW application, be sure to update your COA document.

ie Value[Batch_No]

Statistic[QW_Variable_Name]

This format will insert the summary statistic of all values currently in the Logsheet for the QW variable specified. The variable name must be an exact match to that specified in Quality Window. The variable must also be one that's included in the current View, if a View is being used. Note that if you change a variable name in your QW application, be sure to update your COA document. Also note that the statistics supported must be exact matches to the abbreviations used in Quality Window (which can be seen on the Control Chart screen or in QWSumStat). Some common examples are: Avg, N, USL, UCL, TGT, LCL, LSL, Cr, Tz, Cpk, V_Units, V_Category, etc...

ie Avg[Conveyor_Speed]

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System[parameter]

This format will insert one of many supported system parameters, such as:

[Date:format] – display the current date in the specified format

System[Date:yyyy-mm-dd] returns 1993-01-27

System[Date:m/d/yy] returns 1/27/93

System[Date:dddd, mmmm dd, yyyy] returns Wednesday, January 27, 1993

[Time:format] – display the current time in the specified format

System[Time:hh:mm:ss] returns 17:18:15

System[Time:hh:mm:ss AM/PM] returns 05:18:15 PM

[QWFilename] – displays the current Quality Window filename

[QWViewName] – displays the current Quality Window View name

[QWTitle] – displays the current Quality Window application title

[ComputerName] – displays the workstation's computer name

[UserName] – displays the Windows logon name

Once all fields have been added to your document, it is time to save it. The script assumes that your document will be in the same folder as your QW data file. What you name your document is very important – if you have no View loaded, then the script will look for a document with the same name as the QW application; and if a View is loaded, then it will look for a document with the same name as the current View. As for File Type, the script supports both XLT and XLS variants (xltx, xltm, xlt, xlsx, xlsx, xls) in that order. Using a template file can be advantageous in that the end users cannot overwrite the original document by mistake.

If no matching Excel files are found, then a File Chooser dialog will be displayed and allow the user to select the document to use.

When it's time to generate a document, the end user would open their specific QW application, open a View if any filtering needs to be done, highlight a specific record if any 'Value' tags have been specified, and then click on **Macros -> Display_MSEXCEL_COA**. The script will then open your document in MS Excel and begin to complete your document by filling in all of your fields. Note that fields are processed in a top-down fashion. Once complete, the user can then Save, Print or Email the document as needed.

Note that the Excel implementation supports an extra command called: **\$SUMMARY**

If placed in a cell, whatever formatting that cell's row has will be duplicated for each variable in the view, and from that cell forward, all statistics specified in the view will be dumped in a columnar fashion. If the view specified *Include Chartable Variables Only*, then only variables with limits will be reported. This method can be a quick way to dump statistics into your report. The row above the \$SUMMARY cell should contain headers to match the resulting statistics selected to make the report more legible.

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The screenshot shows an Excel spreadsheet titled 'Book1 - Microsoft Excel' with a ribbon containing tabs for Home, Insert, Page Layout, Formulas, Data, Review, View, Developer, Add-Ins, and Acrobat. The active cell is C11, containing the formula '=Value[Conveyor_Speed]'. The spreadsheet contains a 'CERTIFICATE OF ANALYSIS' form with the following structure:

CERTIFICATE OF ANALYSIS		
Customer Name:	Prompt[Customer Name]	Batch No: Value[Batch_No]
Customer No:	Prompt[Customer Number]	Mfg Date: Value[Date]
Property	Value	Specifications
pH	Value[pH]	USL: 12.1 LSL:11.9
Batch Viscosity	Value[Batch_Viscosity]	USL: 20.5 LSL:20.0
Conveyor Speed	Value[Conveyor_Speed]	USL: 200.1 LSL 190.1
Signature: _____		

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3 - List of available Statistics (always use the abbreviations)

Statistic	Abbreviation
Average	Avg
Calc % above TGT	C%>TGT
Calc % above UCL	C%>UCL
Calc % above USL	C%>USL
Calc % above UWL	C%>UWL
Calc % below LCL	C%<LCL
Calc % below LSL	C%<LSL
Calc % below LWL	C%<LWL
Calc % below TGT	C%<TGT
Calc % OSL	C%OSL
Calc N above TGT	Cn>TGT
Calc N above UCL	Cn<UCL
Calc N above USL	Cn>USL
Calc N above UWL	Cn>UWL
Calc N below LCL	Cn<LCL
Calc N below LSL	Cn<LSL
Calc N below LWL	Cn<LWL
Calc N below TGT	Cn<TGT
Calc N OSL	CnOSL
Calc ppm above TGT	Cppm>TGT
Calc ppm above UCL	Cppm>UCL
Calc ppm above USL	Cppm>USL
Calc ppm above UWL	Cppm>UWL
Calc ppm below LCL	Cppm<LCL
Calc ppm below LSL	Cppm<LSL
Calc ppm below LWL	Cppm<LWL
Calc ppm below TGT	Cppm<TGT
Calc ppm OSL	CppmOSL
Calc ppm UCI	CppmUCI
Calc. Lower Warning Limit	CLWL
Calc. Upper Warning Limit	CUWL
Capability Index	Cp
Category	V_Category
Clearance	Cpk
Coefficient Variation	%CV
Cross Reference	V_Xref
Current Average	Avg-Cur
Current LCL (Fixed/Calc)	LCL - cur
Current LSL (Fixed/Calc)	LSL - cur

Statistic	Abbreviation
Current LWL (Fixed/Calc)	LWL - cur
Current Standard Deviation	Std Dev - Cur
Current TGT (Fixed/Calc)	TGT - cur
Current UCL (Fixed/Calc)	UCL - cur
Current UCL (Fixed/Calc)	UCL - cur
Current USL (Fixed/Calc)	USL - cur
Current UWL (Fixed/Calc)	UWL - cur
Last Value	Last Value
Limits Based On	V_LimBase
Limits Centered On	V_LimCenter
Lower Control Limit	LCL
Lower Process Capability (-3S)	Avg -3S
Lower Process Capability (-4S)	Avg -4S
Lower Spec. Limit	LSL
Lower Warning Limit	LWL
Maximum Allowable Value	V_Max_Allow
Maximum Value	Max Value
Median	M
Minimum Allowable Value	V_Min_Allow
Minimum Value	Min Value
Number of Decimals	V_Decimal
Number of Points	N
Obs % above TGT	O%>TGT
Obs % above UCL	O%>UCL
Obs % above USL	O%>USL
Obs % above UWL	O%>UWL
Obs % below LCL	O%<LCL
Obs % below LSL	O%LSL
Obs % below LWL	O%<LWL
Obs % below TGT	O%<TGT
Obs % on TGT	O%=TGT
Obs % OSL	O%OSL
Obs N above TGT	On>TGT
Obs N above UCL	On>UCL
Obs N above USL	On>USL
Obs N above UWL	On>UWL
Obs N below LCL	On<LCL
Obs N below LSL	On<LSL
Obs N below LWL	On<LWL

Statistic	Abbreviation
Obs N below TGT	On<TGT
Obs N on TGT	On=TGT
Obs N OSL	OnOSL
Obs ppm above TGT	Oppm>TGT
Obs ppm above UCL	Oppm>UCL
Obs ppm above USL	Oppm>USL
Obs ppm above UWL	Oppm>UWL
Obs ppm below LCL	Oppm<LCL
Obs ppm below LSL	Oppm<LSL
Obs ppm below LWL	Oppm<LWL
Obs ppm below TGT	Oppm<TGT
Obs ppm on TGT	Oppm=TGT
Obs ppm OSL	OppmOSL
Obs ppm UCI	OppmUCI
Range AVG	R-AVG
Range LWL	R-LWL
Range UCL	R-UCL
Range UWL	R-UWL
Report Type	V_RepType
Rule Violation	Rule
Sampling Plan	V_Sampling
Sigma	Sigma
Std Dev - mr	S-mr
Std Dev - Pop	S-pop
Sum	Sum
Target	TGT
Target Deviation	T-Dev
Targeting	Tz
Unit of Measure	V_Units
Upper Control Limit	UCL
Upper Process Capability (+3S)	Avg +3S
Upper Process Capability (+4S)	Avg +4S
Upper Spec. Limit	USL
Upper Warning Limit	UWL
Variable Length	V_Length
Variable Name	V_Name
Variable Reference	V_No
Variable Type	V_Type
Variation	Cr