

Quality Window Email Notifications

Administration Guide

May 6, 2024

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Overview

In Quality Window 6.1, Busitech has introduced a new notification feature for its users. This feature enables Quality Window to send out email notifications to a specified audience when data entered in a QW Application violates a defined rule. This is intended to serve as an early warning tool, alerting stakeholders when their processes may have issues that need addressing. A common use case would be to send out a notification when a product is being manufactured and a specific aspect falls out of specification. This allows organizations to react quickly and minimize losses due to improperly manufactured products or misaligned processes.

How it works?

The email notification feature requires a configuration of Quality Window to send emails through an organization's email servers when pre-configured variable rule is violated. Rules are violated when a record is added in a QW Application that has a variable (column) value that triggers an attached rule that indicates the value is of concern and is outside of expected value.

Administrators can control what rules trigger emails. Administrators can also control which variables in QW Applications have rules applied to them that will send email notifications.

Example Email:

QW Alert - LC	L Violation for	Oven Temp. (F) in	Process Mo	onitoring Ex	ample - [Prev	vious Shit	ft Detail]		-		×
🛈 Delete	Archive	🚺 Report 🗸	<~ ≪	$ ightarrow$ \sim	⊕ Zoom	\bigcirc	⊘ ~	₽~	0		
QW Alert - LC	L Violation for O	ven Temp. (F) in Pro	cess Monitor	ing Example	- [Previous Shi	ift Detail]					
c						6) ~				
									Mon 4/29/	/2024 3:15 PN	'
Rule: LCL -	The last point	is less than the l	ower Cont	trol Limit							
		nitoring Example				aitoring (OWTE				
Application	n File Path: <u>C</u>	Susteen Qwoy	ample Ap	plications	Process Mor	<u>iitonng.</u>	QVVTO				
Record Det	tails:										
Date Time:	: 2023-03-21 0)9:25:38 Oven Te	np. (F) (v1	1)							
Variable: v Value: 370	11 - Oven Tem	np. (F)									
	DOWS10-VB6	admin									
Variable Li	mits [.]										
	= F - 450.1 = F - 425.1										
	= C - 425.0										
	= F - 400										
	= C - 375.0										
	F - 374.9 F - 349.9										
• LSL =	F - 349.9										
***Io disab	ole these notig	fications, see En	all Settin	gs ın Qual	ity Window	/ Admin	istratoi	r applic	ation.		
S Reply	Reply al	I 🤿 Forward									





Configuring Email Notifications

Follow these steps to properly configure your organizations email notifications.

Requirements

Before trying to enable Email notifications, you must first ensure you can meet the requirements for this feature.

Quality Window 6.1 or greater

The Email notification feature was introduced in Quality Window version 6.1 and is not available in previous versions.

Mail Server Settings and Credentials

Quality Window requires customers to provide their own mail server settings to send emails. This requires you to inquire with your IT organization and acquire the following information:

Email Server	Sometimes called an SMTP server address these addresses are like web		
address	addresses but are for mail servers.		
	Example: smtp.domain.com		
Port	Mail servers have specific ports they listen. This a number between 0-9999.		
	Example: 5555		
Username	This is the mail server username		
Password	This is the mail server password associated with the username		

If your IT team is unwilling to allow you to configure Quality Window to send emails through your organizations email server, this will be a blocker for you to use this feature. Busitech can offer no solution to circumvent your IT policies.

Distribution Group

The QW Email Notification feature does allow email to be sent to a multiple email addresses, though Busitech recommends to customers to set up a email distribution group in your email organization's system to make it easier to edit email audiences across many rules.

Example: OutOfSpec@mydomain.com

From Email address

Provide an email address that the email notifications should come from.

Configuring Quality Window Email Notifications

Configuring email notification is easy and requires the following steps:



- 1. Validate Shared Configuration
- 2. Configure email settings in QW Admin
- 3. Test email settings in QW Admin
- 4. Configure Rules
- 5. Apply rules to application variables that notifications are required.
- 6. Test

Validate Shared Configuration

The first step is to configure Quality Window Email Notifications (QW Email Notifications) is to provide your organizations Mail server details. This will ensure that these settings will be shared by all Quality Window Client devices.

Steps:

1. Open QW Admin

а

2. Open Shared Configuration



3. Validate that the shared configuration is setup properly and the QWData.QWSDB is showing a green checkmark.

D:\ConfigTest		Change
efault data directory:		
D:N		Change
nstallation directory:		
nstallation directory. D:\Program Files (x86)\Busitech\QW6\		Change
File Name	Date Modified	Scan
📀 C:\ConfigTest	2024-05-01 8:46:31 AM	
🕝 C:\ConfigTest\QWRULES.IQW	2002-10-28 11:19:54 AM	
📀 C:\ConfigTest\QWUNITS.IQW	2024-02-09 3:57:38 PM	
📀 C:\ConfigTest\QWSTATS.IQW	2015-03-12 4:17:48 PM	
C:\ConfigTest\QWSCRIPT.QWX6	2024-04-03 4:27:00 PM	
	2024 04 20 E-E0-E0 DM	
C:\ConfigTest\QWDATA.QWSDB	2024-05-01 8:46:31 AM	

4. If the green checkmark is not showing for the QWData.QWSDB, just open the email settings console and close it to automatically create this file.



a.

- 5. To learn more about configuring your Shared Configuration please see the following resources:
 - a. Video Tutorial <u>Shared Resources</u> Manager



b. PDF Guide - <u>Distributing Shared Resource Files to all Workstations on a network</u>

Configure email settings in QW Admin

Configuring your email settings in QW Admin requires the following details from your email server, available through your IT Department.

Email Server	Sometimes called an SMTP server address these addresses are like web			
address	addresses but are for mail servers.			
	Example: smtp.domain.com			
Port	Mail servers have specific ports they listen. This a number between 0-9999.			
	Example: 5555			
Username	This is the mail server username			
Password	This is the mail server password associated with the username			

NOTE: For this initial version of Quality Window, Simple SMTP Authentication is the only supported method. OAuth and other Authentication methods are not supported currently. If you require these settings, please contact <u>Busitech Support</u>.

Steps to configure Email Settings:

1. Open QW Admin then open Email Settings console



2. Click Email Configuration on the left menu bar.

Email Configuration	Email Configuration
Test Configuration	
-	Enable email notifications
e	Server Settings
	Server Address
	smtp.office365.com
5	Port

3. Enter Server Settings and Content Settings fields.





		_	>
mail Configuration			
est Configuration	Email Configuration		
	Enable email notifications		
	Server Settings		
	Server Address		
	smtp.mydomain.com		
	Port		
	597_		
	User Name		
	notifications@mydomain.com		
	Password		
	•••••		
	Content Settings		
	Default From address		
	notifications@mydomain.com		

4. Click Apply to save.

Test Email Settings

After configuring your Email server settings, Busitech recommends that you test your settings before configuring rule.

To Test your current settings, click the "Test Configuration" on the left menu bar and fill in the 'To' field and edit the 'Subject' and/or 'Message Content' as needed.

1. Click "Send Test Email" button to initiate the test of the current settings.





💣 Email Settings			-		2			
Email Configuration								
Test Configuration	Test Configuration							
	Server Address:	smtp.mydomain.com						
	Port:	597						
	User Name:	notifications@mydomain.com						
	Default From Address:	notifications@mydomain.com						
	То							
	Subject							
	Quality Window notification test email							
	Message content							
	This is a test message sent from Quality Window email notification configuration tool.							
	Send test email							

2. A message box will display after the test is completed with the results from the Quality Window perspective.

Example Success Message		<u>Example Error Message</u>
Email Server Options Test	\times	Email Server Options Test X
Test email sent successfully. Please verify you have received the test email at		An error occurred while sending the test email. Error: 535: 5.7.139 Authentication unsuccessful, user is locked by your organization's security defaults policy. Contact your administrator.
ОК		
		ОК

3. After receiving a success message, verify that email is received. Once you confirm receipt of the email move onto the next step.

*NOTE: You may receive a success message but still have the test email not delivered. In these cases, talk to you Email Administrator or IT team to diagnose issues with your configuration as Quality Window succeeded in passing the message to the email server.

Enable Email Notifications

The last configuration step for email settings is to enable the email notifications, this is simply done by ensuring the checkbox for "Enable Email notifications" is checked on the Email Configuration tab. Enabling will not immediately start sending email notifications, notifications still need to be applied to specific rules which will be covered below in the next section.



💣 Email Settings	
Email Configuration	
Test Configuration	Email Configuration
	Enable email notifications

Enable email notifications checkbox.

Configure Rules

Quality Window Rules have been upgraded to permit optional email configurations. As a reminder, rules are defined in a central location and can be applied to any QW application. Rules are warning mechanisms to notify users that a value entered is of concern and an alarm will be triggered. This is called a Rule Violation and now can initiate an email notification to pre-defined stakeholders.

The email notification can be enabled on a per rule basis. Each rule can have a different notification configuration.

For more information on rule definitions see these resources:

- Video Tutorial: <u>Rules Administration</u>
- Video Tutorial: <u>Alarm Screen</u>
- PDF Guide: <u>Need a little help getting started Page 15</u>

Configuring a Rule Email Notification

1. To configure a Rule Email Notification, open the Manage Rules Console in QW Admin.



2. Select, a Rule to configure an Email Notification (You can also create new rules, copy existing rules)





🚱 Rules Editor	🚱 Rules Editor - C1/ConfigTest\QWRULES.IQW — 🗆 🗙						
Quality∨	QualityWindow 6 Rules Editor						
i 🛃 🏭 📪 🖬	🛱 🔊 🐚 🛍 🗱 🛞 🕯	0					
Rule Definitions							
Name	Description						
	The last point is greater than the						
USL	The last point is greater than the					_	
LSL	The last point is less than the Lo					_	
UCL	The last point is greater than the					-11	
LCL	The last point is less than the Lo					_ '	
3dn		s than the Lower Warning limit (Yellow)				_	
3up	Fach of the last five points are	ater than the Upper Warning limit (Yellow)				_	
Lhup	Leach of the last tive points are o	ar than the previous value					
Rule Identifier		scription Email Notifications					
USL_Notification							
Minimum		Enable email notifications for this rule					
1		From notifications@mydomain.com					
Maximum		To kelly@mydomain.com					
1		Subject QW Alert - %RULE% Violation for %VARIABLE%				5	
Condition		Subject				-	
>	~	ext HTML					
Zone		Rule: %RULE% - %RuleDescription%					
	Zone - USL-UpperSpec.Limit (White) - Application: %TITLE%					1	
Application File Path: %FILEPATH %							
	Record Details:						
		Date Time: %DATE%, %TIME% (antable: v%VRIABLENO%, ~%VARIABLE% ?ostition: %VARIABLEPOSITION% (alue: %VALUE% Jser: %USERNAME%					
		4					
		Reset to default					

3. Click the 'Email Notifications' Tab

Leach at the last five points are a	reater than the nrev	vioue value
1	Description Ema	ail Notifications
	🗹 Enable ema	ail notifications for this rule
	From	notifications@mydomain.com
	То	kelly@mydomain.com

4. Edit fields as required. See below for details on each field and supported replacement codes.



Description Em	ail Notifications	
🕗 Enable em	ail notifications for this rule	
From	notifications@mydomain.com	
То	kelly@mydomain.com	
Subject	QW Alert - %RULE% Violation for %VARIABLE% in %TITLE%	
Text HTML		
	- %RuleDescription%	
Application: %7 Application File	ITLE% Path: %FILEPATH%	
Record Details	:	
Variable: v%VA		
		•
Reset to def	ault	

Table of Email Notification Properties

Enable email	When checked, will send an email when this rule throws an alarm.
notifications for this rule	
From	From email address, defaults to the default from address configured
	in Email Settings – Content Settings.
То	To email address separate addresses with semi colons. Maximum 5
	emails addresses are supported. If you need more, create a
	distribution email group.
Subject	Email subject value.
	Supports replacements codes.
	See replacement codes section below for reference.
Email Content	The body of the email. Can define two distinct messages based on if
Text/HTML	you want HTML or Text. It is recommended to fill in both.
	Supports replacements codes.
	See replacement codes section below for reference.
	Default Text demonstrates replacement codes.
Reset to Default button	Resets all values in this grid to default values.

Supported Replace codes for Email Notifications

The list below is a list of all supported replacement codes. These codes will be replaced with values based on the rule that was violated and the record that violated the rule.

%RULE%	The Identifier property of the Rule that triggered the notification.
%RULEDESCRIPTION%	The description property of the Rule that triggered the notification.
%FILEPATH%	The file path and name of the application that triggered the notification.
%TITLE%	The title of the application that triggered the notification Includes [View Name] if applicable.
%VARIABLE%	The name of the variable that triggered the notification.



%VARIABLENO%	The variable index or position in the application that triggered the alarm regardless of selected view.
%VARIABLEPOSITION%	The index or numeric position of the variable in the Logsheet or current view.
%VALUE%	The value that triggered the notification.
%DATE%	The date portion of the Logsheet record that triggered the notification.
%TIME%	The time portion of the Logsheet record that triggered the notification.
%USERNAME%	The user that entered the data that triggered the notification.
%UCL%	The Upper Control Limit of the variable that triggered the notification.
%LCL%	The Lower Control Limit of the variable that triggered the notification.
%USL%	The Upper Specification Limit of the variable that triggered the notification.
%LSL%	The Lower Specification Limit of the variable that triggered the notification
%UWL%	The Upper Warning Limit of the variable that triggered the notification
%LWL%	The Lower Warning Limit of the variable that triggered the notification
%TGT%	The Target limit value of the variable that triggered the notification

Example Notification

🗊 Delete 🛛 🖻	Archive	🛈 Report	~ \	≪	$ ightarrow$ \sim	⊕ Zoor	n 🛛 🖻		~ 4	~ 0	
QW Alert - LCL Vio	lation for O	ven Temp. (F) in	Process M	onitorir	ng Example	- [Previous	Shift Det	ail]			
								;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;	~ « >	00	
c										Mon 4/2	9/2024 3:15 PN
Rule: LCL - The	last point	is less than f	the Lower	Contr	ol Limit						
Application: Pr								01117	-		
Application Fil	e Path: 🕒	<u>\Busitech\Q</u>	No\Sampi	<u>e App</u>	lications	Process IV	ionitori	ng.QWT	2		
Record Details											
Date Time: 202			n Temp. (F) (v11))						
/ariable: v11 - /alue: 370	Oven leff	ip. (F)									
Jser: WINDOW	/S10-VB6\	admin									
/ariable Limits											
 USL = F - 	450.1										
 UCL = F - 											
 UWL = C 											
• TGT = F -											
 LWL = C 											
 LCL = F - LSL = F - 											
 LSL = F - 	349.9										
***To disable t	hese noti	fications, se	e Email S	etting	s in Qua	lity Wind	ow Adı	ninistra	tor app	plication.	
S Reply	Keply al	II 🧷 Forw									

Apply Rules to QW Applications

The final configuration step is to ensure your rules are applied to the right QW Application and variables. This is done by opening QW Applications in QW Admin – Manage Applications that you want to enabled notifications on and ensure the variable(s) have appropriate rules configured.





	W6 Administrator build 6.1.35							
ile	Window Help			Sig				
51	a 🖹 🖨 🔗							
nin I	Menu Process Monitoring.QW/T6	X						
ain i	Process Monitoring.QW16	^						
٨dd	New Variable	x	🗎 📉 🗙 🔊 🚺 🖣 11 of 26 🕨 🔰 🟹	i 📶 🗼 🖂 🥝				
		Rules Editor	×					
/aria	ble View Grid View General	Vie						
V#	Name	Name	Description					
1	Date	USL Notification	The last point is greater than the Upper Specification Limit	11				
2	Time	USL	The last point is greater than the Upper Specification Limit	Weight_Lane 1_(gm)				
3	Auto_Shift_Id	📃 🔽 LSL	The last point is less than the Lower Specification Limit	Numeric				
_		- UCL	The last point is greater than the Upper Control Limit	4				
4	Shift	LCL	The last point is less than the Lower Control Limit	00.0				
5	Team	🔄 3dn	The last three points entered are less than the Lower Warning I					
6	Team_Leader	🗹 3up	The last three points entered are greater than the Upper Wami Each of the last five points are greater than the previous value.	Fixed 7.7				
7	Batch_Number	5up	Calc					
3	Batch Viscosity	V Jup	Each of the last five points are less than the previous value. The last seven points are all greater than the target value for th	Fixed 6				
	Conveyor Speed (fpm)	7dp	The last seven points are all less than the target value for this v	Calc				
, 10		-		Fixed 2 05				
-	Oven_Temp(F)	_		-9.9				
11	Weight_Lane 1_(gm)			Population				
2	Weight_Lane 2_(gm)	Select All (lear OK Cancel	FixedTarget				
13	Weight_Lane 3_(gm)			USL,LSL,UCL,LCL,3dn,3up,5up,5dn, No				
14	Weight_Average_of 3	Calculated	Protected	No				
15	Weight Range of 3	Calculated	Sampling Plan	1				
6	Weight Profile Al Lanes	Calculated	Input File	C:\Busitech\QW6\Sample Applicatio				
7		Calculated	Output File					
	Weight Profile_All Lanes_XbarR	Calculated	Units of Measure Report Type	gm Variable				
10	A PALIN A A A	1.4	report type	vanable				

Example Manage Applications

See

My Rules are enabled on most of my variables, but I do not want notifications for all of them.

In Quality Window version 6, Rules are not enabled on variables by default, but in previous versions of Quality Window, Rules were automatically assigned to variables. This could create a scenario where too many QW applications have existing rules assigned to variables and an unwillingness to send notifications to a broad set of applications. In this case, Busitech recommends that administrators copy existing rules they want receive notifications from and apply the new rule to only the QW Applications they wish to receive notifications from.

Rule Definitions							
Name	Description						
USL_Notification	The last point is greater than the Upper Specification Limit						
USL	The last point is greater than the Upper Specification Limit						

Example of a distinct Upper Spec Limit Rule with Notifications

Validating Notifications

As with any change, testing is key to ensuring that the system works as expected. Below are the tests that Busitech recommends validating your notifications.

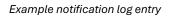


- 1. Ensure that a QW Application has a Rule enabled on a variable that has email notifications defined and enabled.
- 2. Add a record to the QW Application that will trigger the Rule and create an alarm entry.
- 3. Once alarm screen is displayed confirm that a log entry has been added indicating the email notification is sent

	orkstation 6.1.44 -													-	- 0	\times
File Edit	Views Update	Tools Macro	s User He	elp			J.		Ð	. 🚷		-2	H _0	•	r	r .
Open	Views	Add	Edit	Insert	Сору	Delete	Range Chart	Filter	Zoom	Refresh	Var Info	Var Help	App Help	Audit Tr	ail Repo	rt
Alarms (2)	User -	Help														
v10 - Ov	en Temp. (F)					0	C Acknowledg	ed.								
	<u>tification</u> The I		greater tha	n the Upper	Specificati	465										A
		• • •	•	•		_	Acture Taken defet de sensor	- replaced		/Time -03-21 09:25:38			Rule D LCL	kelly	Save Machine KELLYSURFA	ACES
LCL Th	e last point is l	ess than the	Lower Co	ntrol Limit		80	Notification Sent	(2024-05-03 1					5 USL_Notificati			

Example Alarm Screen view with notification log entry

по сопретаките зелаот маз астоските	2020/03/21/03.20.00	over_remp(r)	JUD ECE	NOIN	NELET SOFT AGES
Notification Sent (2024-05-03 10:36:47)	2024-05-03 10:36:06	Oven_Temp(F)	465 USL_Notification	kelly	KELLYSURFACES



- 4. If log entry doesn't exist, confirm that your variable(s) has the rule enabled then verify your rule configurations. Once you find your issue try again.
- 5. If the log entry does exist, ensure that an email was received.
 - a. If email wasn't received verify the following:
 - i. Check your Junk/Spam Folder for the email.
 - ii. Check Sent mail folder for the configured '**from**' address of the notification email.
 - iii. Verify Rule Configuration
 - 1. To Address
 - 2. From Address

If all steps do not resolve your issue, contact **Busitech Support**.

