HEXAGON

Q-DAS M-QIS Engine

Daily Report – Values out of Tolerance – consideration of historical alarms

Reporting-system Case Studies

CAS
19 February 2024
Created with Version V14

HxGN Quality Assurance

Information about this document

Parts of this document may be automatically translated.

Document History

Version	Date	Author(s)	Modifications / Remarks
	08.01.2023	GA	Initial release (QDas-1790)
v-0.8	21.08.2023	LG	New template

CONTENTS

1 Task 3
1.1 Read from Database 4
1.2 Evaluation Strategy 5
1.3 Report Assignment for Reporting-System 6
1.4 Reporting System 7
2 Result 8

1 Task

A report is to be sent which lists all variable characteristics that had measured values outside of 80% of tolerance on the previous day. If such a characteristic has been identified, all measured values of the previous week until now shall be shown in the report.

Similar case study (0101) for the reporting system was created. The difference is: Not only the values of the last day are loaded! Loaded are the data including the last week till now.

Measured values outside the 80% of the tolerance, loaded before the previous day, might end up with the alarm again. In order to avoid that, the option “historical alarm” is set. That way it is logged in the database what measured values in what characteristics were already reported with what reporting job.

This document only describes the settings required for this very task. The manual for M-QIS products provides detailed descriptions of the single options. This documentation does not describe WHO receives the report, or special settings for the filenames. It only shows how to print the report as a PDF.

In a reporting job, there are different levels that needs to be taken in the consideration. Following list represents those levels, with the location in the software where this is defined:

- Read from database (create queries)
  - Which data pool is loaded from the database?
- Evaluation strategy
  - How is the data pool mathematically evaluated?
- Report assignment for Reporting System
  - Which report template is used?
  - What is the reason to include a characteristic in the Report?
  - How to distribute the PDF report (save to… / e-mail)
- Reporting-System
  - When is the reporting job triggered?

Read from database	A query including the Parts which have measured values from the last day, with a value-filter “Last 1 weeks complete with rest”, for all characteristics that meets the criteria from the Parts filter.
Evaluation strategy	Since characteristics are only reported if they have measured values outside the tolerance, only the "Preparation" tab with the outliers definition would play a role.
Report assignment for Reporting System	PC_0050_ValueChart_NOK-values.def Bad Smiley Report with special condition “Individual value alarm occurred” to sort out characteristics where all values are in tolerance.
Reporting-System	08:00 AM daily Activated Option “Detect historical Alarms”

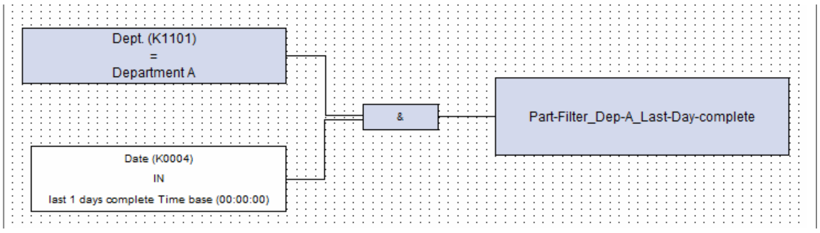
The Reporting-System is running with the „**SuperUser**”. It is important to make all settings with this user.

1.1 Read from Database

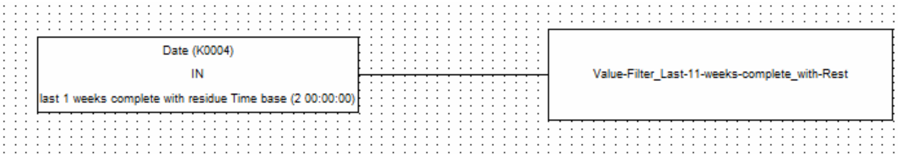
It is assumed that readers have a basic knowledge of the complex filters and queries.

The pre-selection of parts/test plans is elementary here, in this example the components of "Department A" are used.

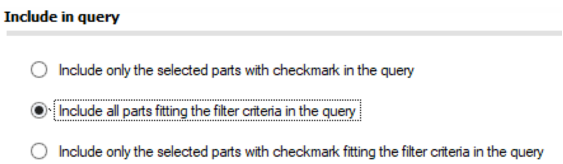
The part filter reduces the set of test plans from "Department A" to those that have measured values from the previous day.



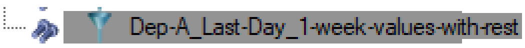
The measured value filter reduces the set of measured values to those from the last 1 week complete with rest.



A dynamic query is created that re-lists the parts to be loaded each time it is executed.

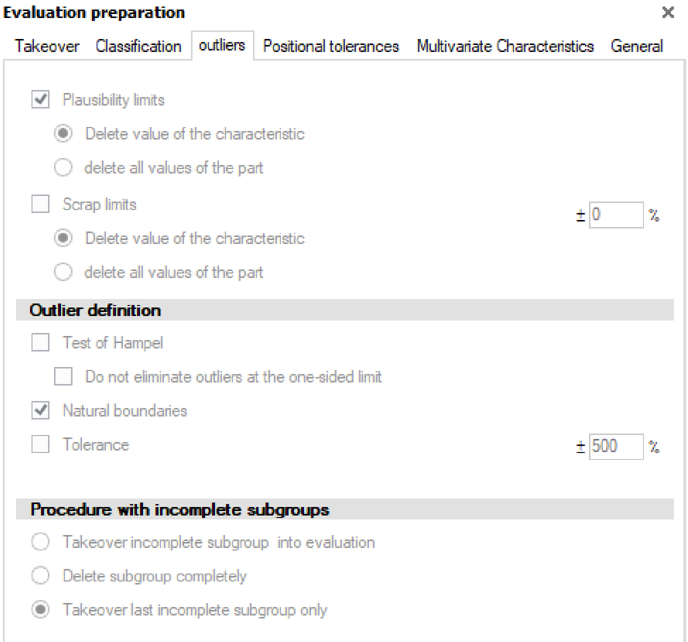


The query should be saved with a meaningful name.



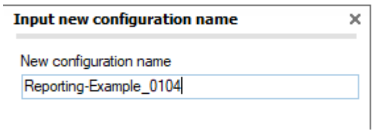
1.2 Evaluation Strategy

In this reporting job, the goal is to identify the measured values outside the 80% of the tolerance. Therefore, in the evaluation strategy only the setting for outliers must be taken care of. If the used evaluation strategy would eliminate some measured values because it thinks they are outliers, those measured values would not be considered by the reporting system.

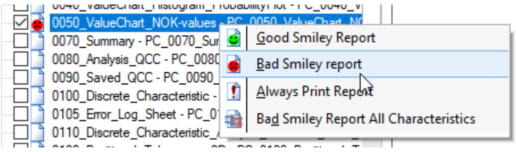


1.3 Report Assignment for Reporting-System

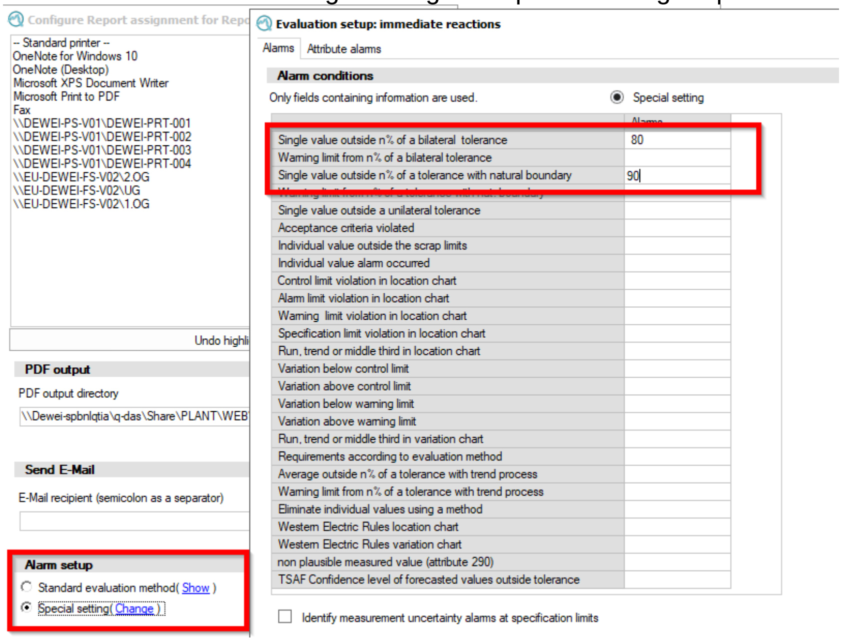
A new configuration is created in the report assignment for Reporting System.



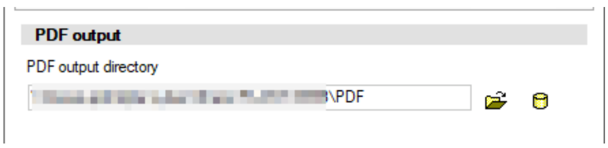
After assigning a name, the report template to be printed is selected. Using the right mouse click, the report can be defined as “Bad Smiley report”. The “reason” for bad smiley report must be defined then.



his is done in the next dialogue using the "special settings" option.



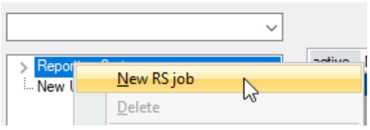
Furthermore, it is specified that the report is to be printed as a PDF. All other options, such as sending the reports by e-mail are explained in the Reporting System Manual.



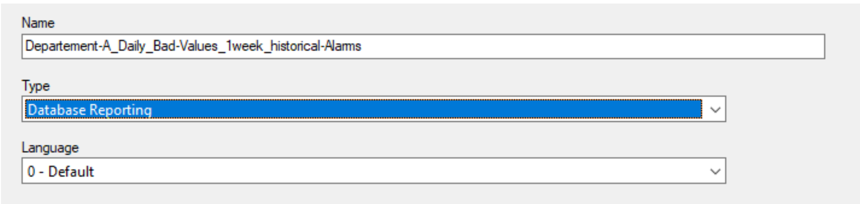
The single value alarms at the beginning of the table normally works only with the last measured value. Only in combination with the option of historical alarms (in the reporting job) they can be used with the whole loaded dataset.

1.4 Reporting System

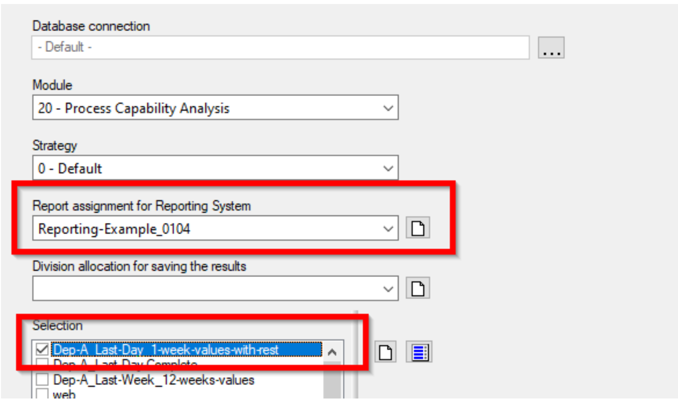
A new job is created in the reporting system:



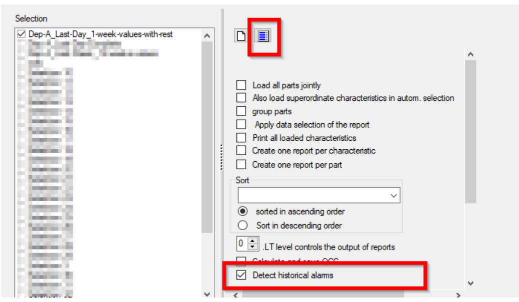
The reporting job should be given a meaningful name:



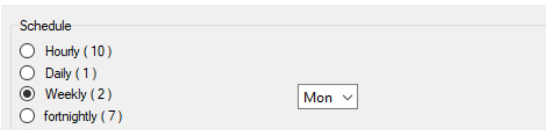
In the settings, the report assignment for Reporting System, the Strategy and the query are assigned to the reporting job. The query is the same as in the Case-Study 0102:



The button for special settings opens the options. Here the option "detect historical alarms" is set.

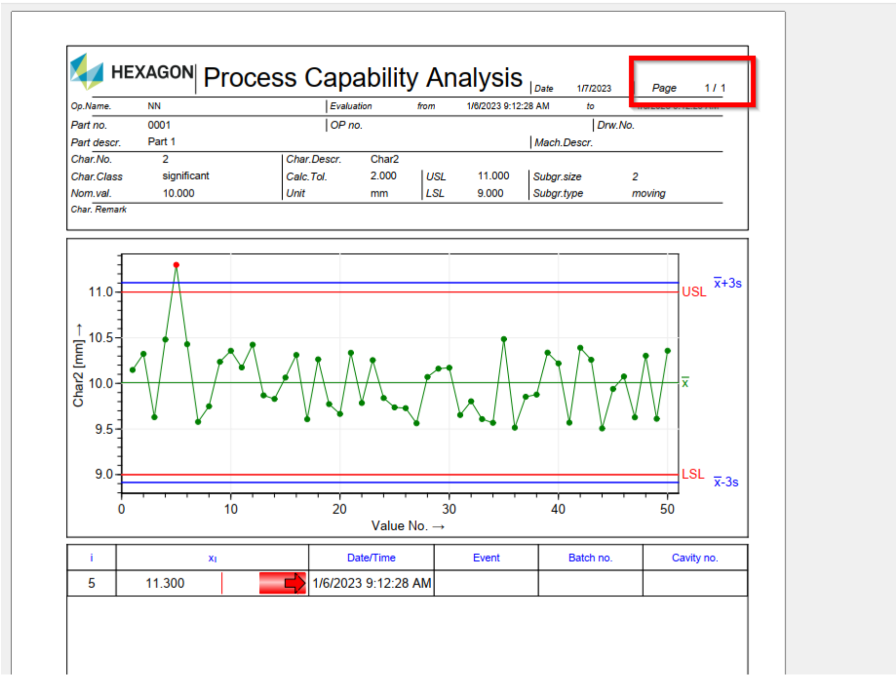


The trigger of the reporting job is scheduled on every Monday at 08:00 AM:



2 Result

Of the entire set of characteristics, only the characteristic that had a measured value outside the 80% of the tolerance on the previous day was printed together with all values starting from the last week. The selected report contains the list of measured values that triggered the reporting job below the value chart.



With the option "historical alarms", it is now stored in the database in the table ALARMHIST that everything has already been alarmed for this part, this characteristic, up to the measured value 1456, related to the RS_STATION_GUID and the name of the reporting system job.

DEWEI-SPBNLQTIA\...- dbo.ALARMHIST

	TNR	MMNR	MWNR	IDENT
	23	3	1456	{788DE3AD-12A5-4297-AD0A-7F6470AC42E6}Departement-A_Daily_Bad-Values_1week_historical-Alarms
▸*	NULL	NULL	NULL	NULL