HEXAGON

Q-DAS M-QIS Engine

Data Compression for Long Term Analysis

Reporting-System Case Studies

CAS
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Information about this document

Parts of this document may be automatically translated.

Document History

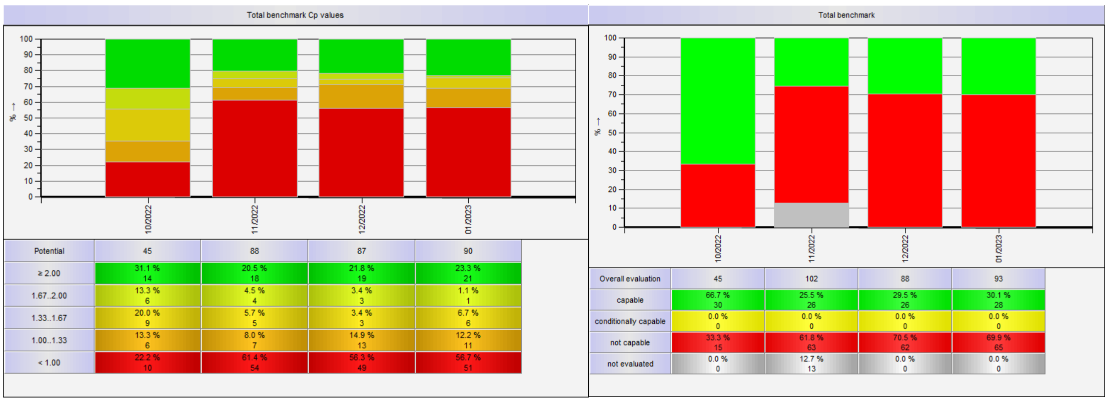
Version	Date	Author(s)	Modifications / Remarks
	08.01.2023	GA	Initial release (QDas-1791)
v-0.8	21.08.2023	LG	New template

CONTENTS

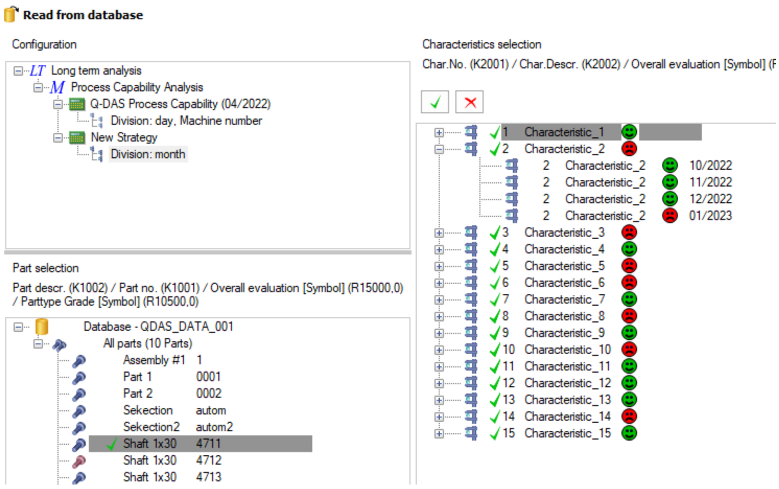
1 Task

The long-term view of the progress of capability indices is one of the highest levels in M-QIS. A short example will show the target of a very simple data aggregation.

The target is to see the evaluations of the characteristics summed up per month. In the last months, how many characteristics were measured, how many of them had which capability indexes (left image), or how many were evaluated as capable, not capable or not evaluable by the strategy (right image).



This is achieved through so-called data aggregation. The evaluation strategy, with which a data pool is evaluated, is defined. The data pool is divided according to set time criteria and calculated separately, and a defined amount of output points is saved in a "results table" of the database. In the dialog “read from database”, in the long term analysis module, this can be seen after the first summarisation. Per evaluation module, per strategy, and per selected splitting criteria, the parts are shown. The characteristics are shown already split and grouped according to their splitting criteria.



The "capability" (smiley) can be seen here. The reason for this is the fact that this is now a stored information, unlike in the qs-STAT product, where an evaluation takes place after the data has been loaded.

This document describes the settings required for this very task. The manual for M-QIS products provides detailed descriptions of the single options.

In the reporting job for data compression, 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?
- Division allocation
    - Which Levels / Time Units should be used?
- Reporting-System
    - When is the reporting job triggered?

Read from database	A Filter with “Last month complete with Rest”
Evaluation strategy	Strategy “New Strategy”
Division allocation	A new division allocation for the Strategy “New Strategy”, by month
Reporting-System	Triggered at the start of every week.

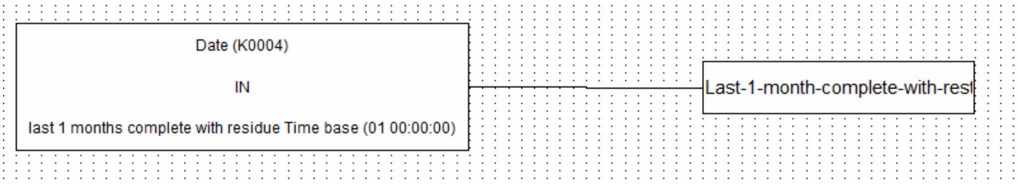
The Reporting-System is running with the „**SuperUser**”. It is important to make all settings with this user.

1.1 Read from Database

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

The time filters for reading from database must match the selected time element in the "Division allocation for saving the results" and the start time of the reporting job.

Based on the selected example, the time filter "Last 1 month complete with rest" is selected.



The explanation of combining the time filter with parts and characteristics filters, so that only those characteristics are summarised, which should also be considered, has been omitted here.

This time filter achieves the following:

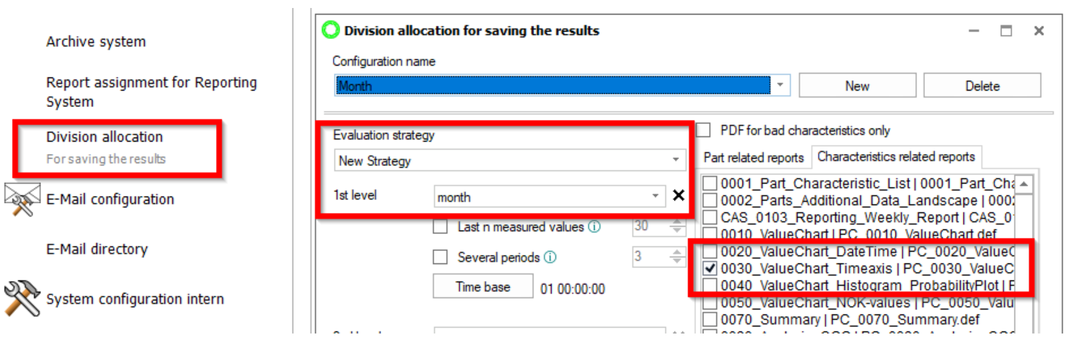
- Within a month, the last month is always loaded, calculated and saved. This gives the key users time to take care of any incorrect data pools or to remove outliers.
- By also loading all data of the started month, the current month is updated every time the reporting job is executed.

1.2 Evaluation Strategy

The evaluation strategy has fundamental importance in data summarisation, but is not chosen in the reporting system, but in the division allocation of the results.

1.3 Division allocation for saving the results

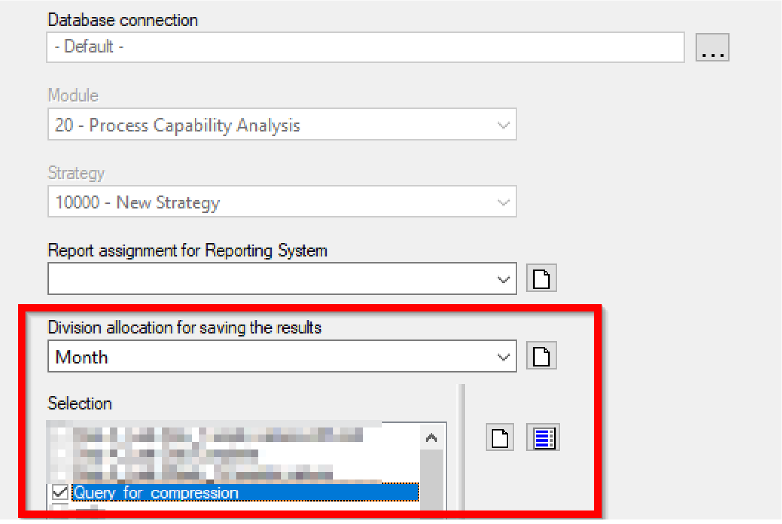
A new division allocation is created for reporting which contains the strategy, the allocation criteria and, as an example, one additional report per characteristic.



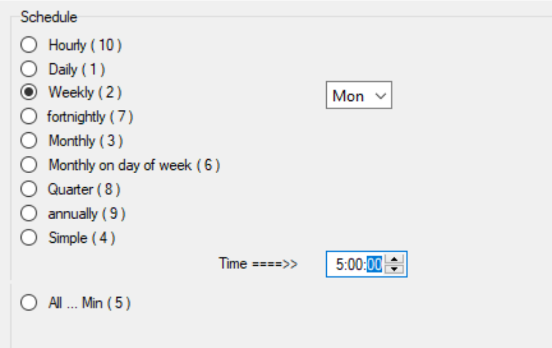
When saving reports per characteristic, it should be noted that these are also saved in the database as a pdf. Therefore, the amount of data in reports should be considered.

1.4 Reporting System

In the Reporting System, only the created Division allocation and the query is to be selected



The trigger time "Weekly, Monday, 08:00 AM" is chosen "arbitrarily". Similarly, this could run daily or at defined intervals. The only thing to consider is the duration of the reporting job. It should not be restarted faster than the time needed for the summarisation run.



2 Result

The result to be seen later is as described in the task: A summation of the C-values or capabilities over the time unit. These overview graphics can be opened without first loading from the database:

By saving the additional reports per characteristic, they can be viewed in the "Read from database" dialogue: