

T-22 Quality management tools in PHM

Content

introduction

1. Characteristics of the methods of quality assessment
2. Specifications processes undermining the quality of PHM
3. Application of the methods of quality assessment in PHM

conclusion

Literature

Vratislav Horálek. *Jednoduché nástroje řízení jakosti*. Praha: Národní informační středisko pro podporu jakosti 2004.

1. CHARACTERISTICS OF THE METHODS OF QUALITY ASSESSMENT

Basic methods

- Flow diagram
- Pareto diagram
- spot diagrams
- Control diagram

1. CHARACTERISTICS OF THE METHODS OF QUALITY

Process management tools contribute:

- its monitoring and better manage management
- to a deeper understanding of the process and implementation process approach
- problems of identification,
- to solve problems related to the diagnosis and resulting partial specific problems,
- to improve the functioning of the entire system
- to rationalize and objectification implemented decisions.

1. CHARACTERISTICS OF THE METHODS OF QUALITY ASSESSMENT

Flow diagram

The goal is to show the flow diagram of activities, a sequence of operations, continuity of operations, partial decisions based on alternative outputs etc. In essence, it is the ultimate directed graph that has a beginning and an end, operational and decision blocks and includes a loop formed by decision blocks.

1. CHARACTERISTICS OF THE METHODS OF QUALITY ASSESSMENT

Basic symbols

For processing flowcharts commemorate least basic meanings of symbols, others can be found in ISO 5807: 1996 [7]:

Limit Mark: represents the input or output, such as the beginning or end of the program.



1. CHARACTERISTICS OF THE METHODS OF QUALITY ASSESSMENT

Processing:

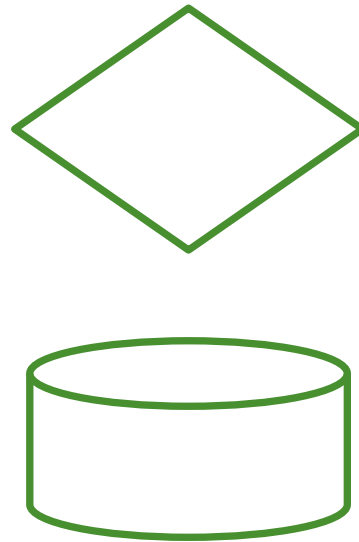
represents any kind of processing functions, eg. the implementation of defined operations or group of operations, resulting in a change in value, form or location or determine which of several flow direction has to be monitored.



1. CHARACTERISTICS OF THE METHODS OF QUALITY ASSESSMENT

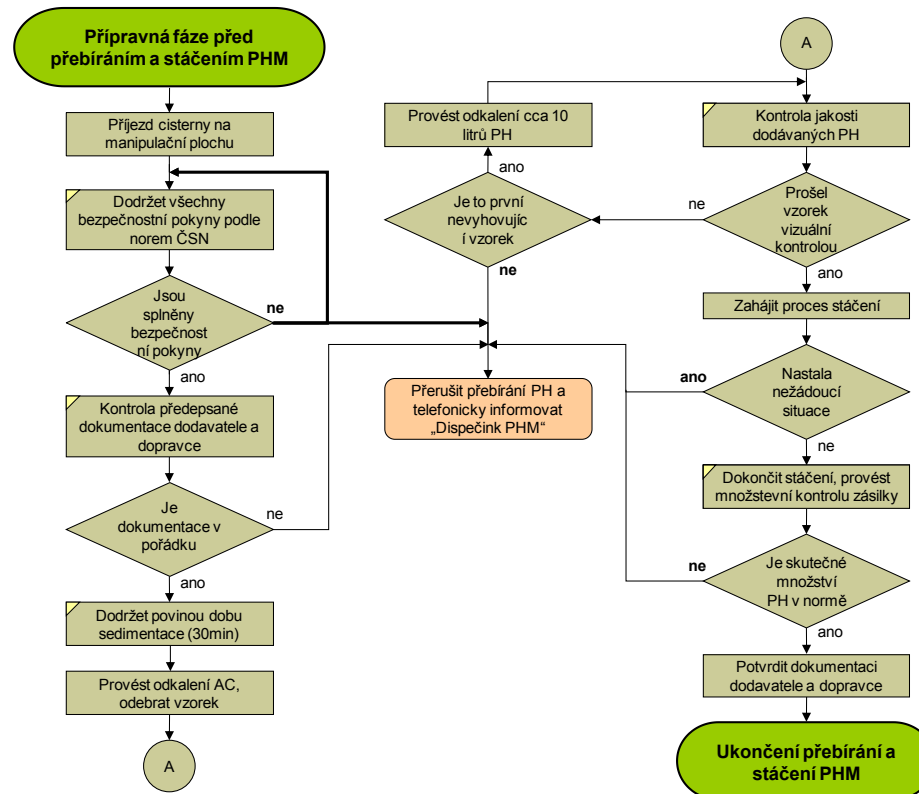
Decision-making: is a decision or switching functions with a single entry, which may be a number of alternative outcomes, only one of which can be activated after evaluating the conditions laid inside the symbol. Relevant evaluation results can be attributed to the links representing paths.

Database:



1. CHARACTERISTICS OF THE METHODS OF QUALITY

The process of accepting the shipment of PLO



Zdroj: O. Šimčík, diplomová práce. Aktuální zhodnocení systému zásobování materiálem MU 3.0

Integrated diagram - tribo system design in ACR

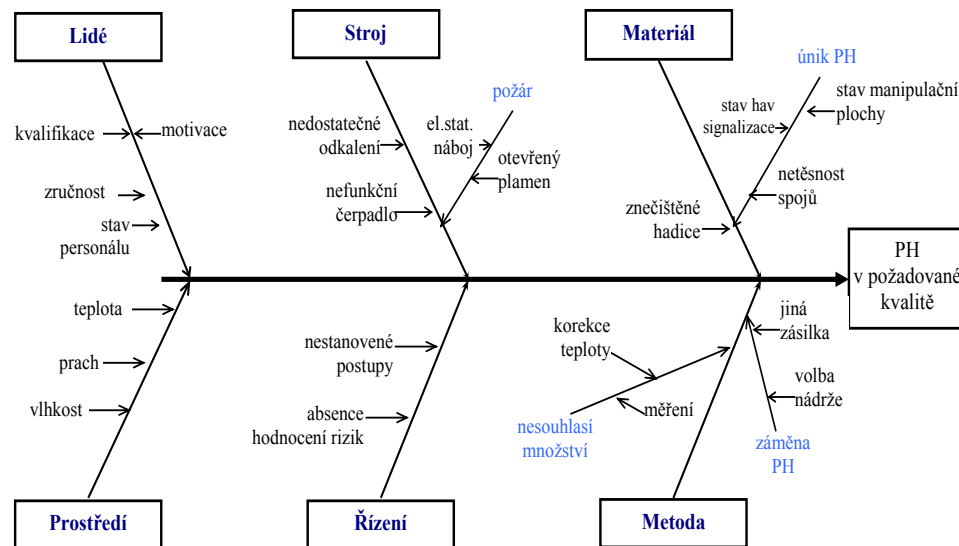


1. CHARACTERISTICS OF THE METHODS OF QUALITY MENT

Cause and effect diagram

Cause and effect diagram shown in graphical form the relationship between consequences and causes of variation in this character.

Using Ishikawa diagrams assessing causes and consequences



Použití Ishikawova diagramu posuzování příčin a následků

1. CHARACTERISTICS OF THE METHODS OF QUALITY ASSESSMENT

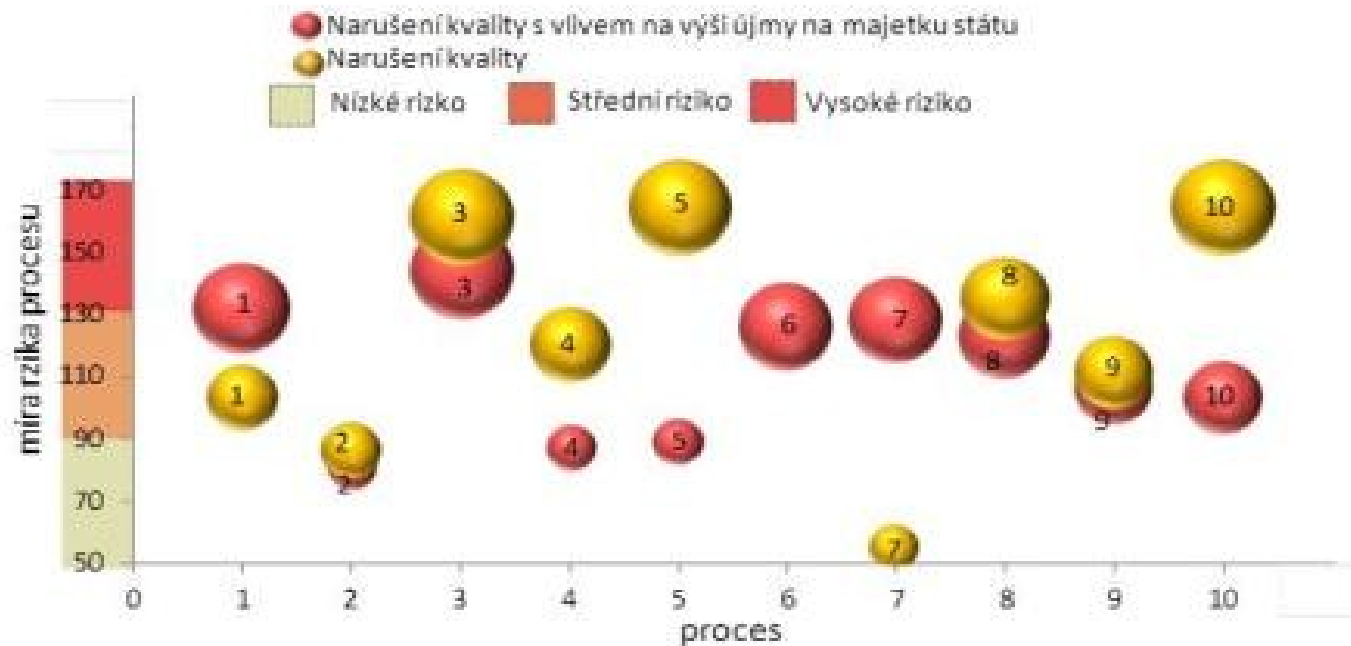
Pareto diagram

It is based on the idea of the Italian economist Vilfredo Pareto, who at the beginning of the last century found that 80% of national income is 20% of the population.

2. SPECIFICATIONS PROCESSES UNDERMINING THE OF PHM

Vyhodnocení dopadu rizik

Assessment of the level of risk processes in the distribution chain through a questionnaire survey of managerial staff in the field of fuel was evaluated as dangerous "process of refueling in the field through mobile devices."

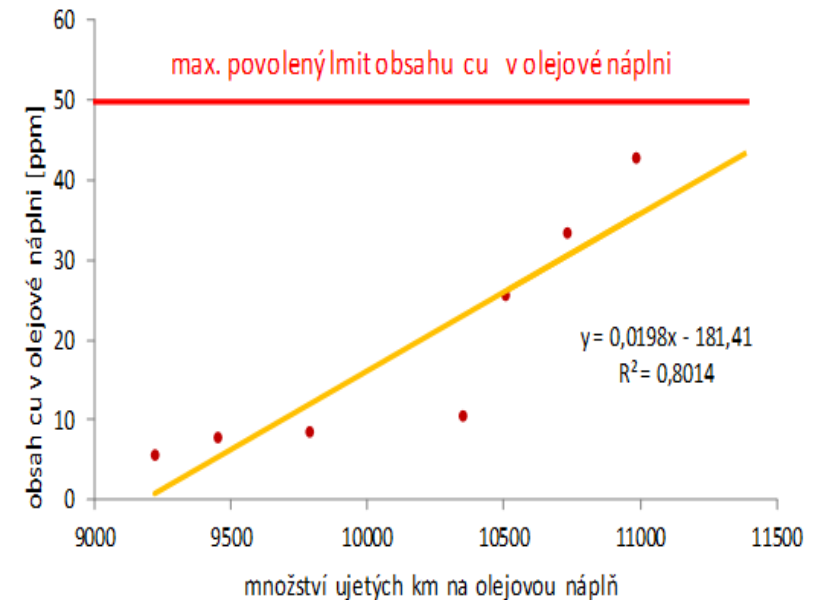


3. APPLICATION OF THE METHODS OF QUALITY ASSESSMENT IN PHM

PHM

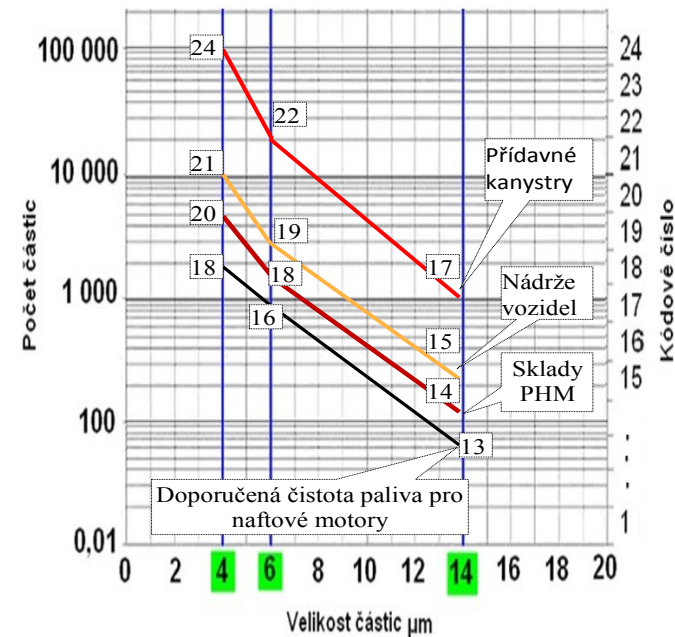
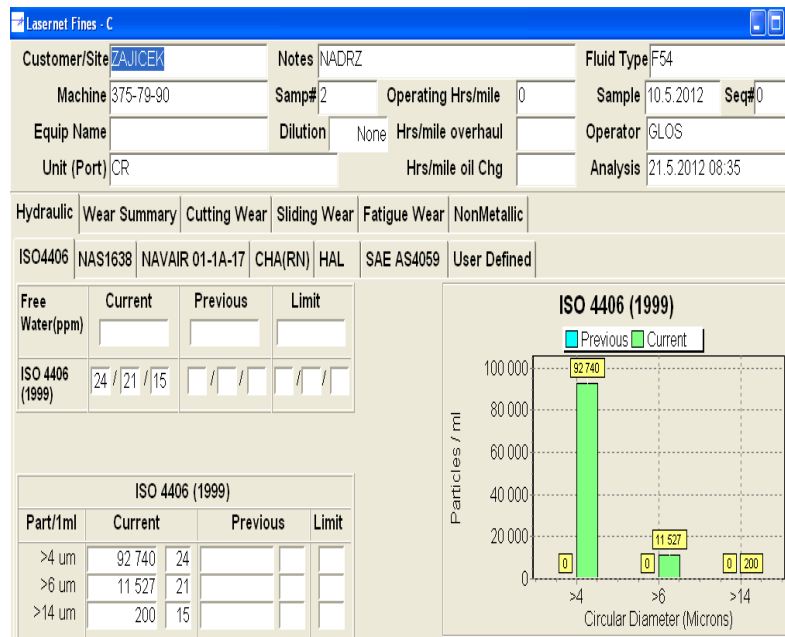
Závislost obsahu mědi na počtu ujetých kilometrů

i	x_i [km]	y_i cu [ppm]	x_i^2	$x_i y_i$	y_i^2
1	9223	5,6	85 063 729	51 649	31,4
2	9453	7,8	89 359 209	73 733	60,8
3	9789	8,5	95 824 521	83 207	72,3
5	10350	10,5	107 122 500	108 675	110,3
6	10506	25,6	110 376 036	268 954	655,4
7	10732	33,4	115 175 824	358 449	1 115,6
8	10984	42,8	120 648 256	470 115	1 831,8
SUM	71037	134,2	723 570 075	1 414 781	3 877,5



3. APPLICATION OF THE METHODS OF QUALITY

computer and classifier particles Spectro LNF C network graph



CONCLUSION

The application of quality management tools contributes significantly to maintain the desired quality of products, processes or services. It is possible to identify the causes and take effective measures to eliminate the desired level of quality.