Importing data in CMMS implementation projects

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A CMMS (Computerized Maintenance Management System) is nowadays, unquestionably, an essential tool for maintenance management.

It is increasingly common the existence of information about maintenances items in an IT support, though not centralized, where all parties involved have access to this information.

This article examines a CMMS data importation from a database, an *Excel* file, a *CSV* file, or other type of file.

Data collection regarding maintenance items

Before collecting data regarding maintenance items, there must be a correct definition of these items and the necessary information to record in the CMMS, considering, in an initial stage, only managed items, i.e. items that have a maintenance plan and for which will be recorded work orders and historic. The Figure 1 describes the different stages with the respective information necessary to record a Maintenance item.

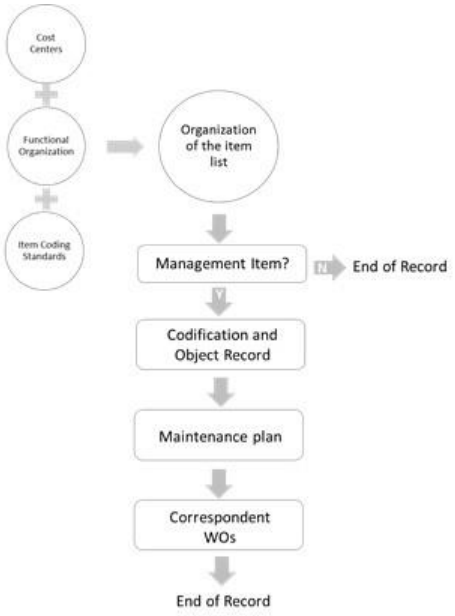

FIGURE 1 - ADAPTED FROM CABRAL, 2013

The data collection regarding maintenance items can be performed from one of three following ways: through a physical inventory of maintenance items, importing data from Equipment/maintenance items (based on existent information or in other IT support) or a combination of both methods.

Importation from a solution other than a database (CMMS)

This first type of importation, corresponds to a data import in a company that acquires for the first time a maintenance management software, with the objective of passing information contained in a certain file, or existent application, to a CMMS.

There are many problems that may arise from this type of importation, in particular:

Lack of Training

It is quite likely that company's technicians are not totally familiarized with the conceptual component of organization and maintenance management. This can result in an excess of equipment or in a lack of its information, namely technical specifications and maintenance plans.

At this phase, it is very important the support and advisory of the consultant, in this case the implementer, that in some situations may lead to a total restructuring of the original file prepared by the CMMS user.

Functional Organization and Codification

Until a CMMS is acquired, equipment is managed via a file, via an application developed by the company itself or simply it is not managed. It is common that there is no functional organization of the facility (the X-ray of the organization) or logic codification of equipment, and if they exist, it is likely that they have been created according to circumstances and are not consistent.

The functional organization is the radiograph of the facility, structuring equipment according to its function. This structure allows, if an anomaly occurs in a certain equipment, to rapidly track the extension of it and its impact on the overall performance of the function in which it is inserted.

The codification of maintenance items, should be unique and with a logic for each type of work, allowing equipment to be quickly found on the organization's structure.

Before any data importation, the consultant, together with the CMMS user (client), should define/restructure the codification of equipment and the functional organization. This stage is essential to guarantee the correct management of maintenance items. It is not practicable to perform the importation without such definition, it would only make the project more confusing and time consuming, demotivating all intervenient.

Old Habits

When an organization acquires a CMMS, does it because have understood that the former system was not effective, and consequently wants to switch it. However, despite the company has been looking for a change, people involved in the process might not be interested in changing. For this reason, it is very important to involve all the people in this process, to raise their awareness regarding this need. The resistance to change might preclude a project from the beginning since it makes more difficult the resolution of the problems mentioned above.

The consultant has a key role dealing with this objections and leading the process. Should assume a firm stance on changes that have to be done, making the company understand the need for these changes.

Importation of data from another CMMS

This second type of importation occurs when a company changes a CMMS and wants to transfer data from the older CMMS to the new one. There are problems similar to the previous situation, but other problems may arise:

Language

Software can have completely different languages, nomenclatures and operating procedures, which makes almost impossible a direct transfer. Data from an older CMMS should be previously analyzed and interpreted, to be placed in a format defined by the consultant.

This work, ideally, should be done by the client advised by the consultant, since the client knows the data and the operation of the previous CMMS, and the consultant is an expert of the new CMMS. He knows how information should be processed, imported, and also if it is possible to realize the transfers that user wants, that may not always be possible.

Historic

When changing a CMMS, there is a pertinent question that arises: "Can I import my maintenance historic?", which means: importing performed work orders, downtime, purchase orders, inventories, costs and indicators, from the older to the new CMMS.

The answer to this questions is "yes" but rules must be defined. First, it should be completely defined what makes sense to import to the new CMMS, and here again, the consultant has an essential role. After defining what should be imported (this definition should not change during the project), the information has to be worked and adapted to the format of the new CMMS. Ideally, this should be a joint work, Client-Consultant.

Even following this procedure, it should be clear that when a new CMMS is adopted, the structure of database and its constitution are different, with tables and fields not compatible or existent in both applications. Therefore, the importation of some information might not be viable.

Conclusion

The importation of data does not have to be a lost battle, if it is a process well conducted and if some rules are respected.

One of the major problems on importations regards the information given to the consultant. In most cases is an imperceptible file, with excess of information, and made according to the own way of the person who was using it. The main key for a good importation is having information inserted in a specific format designed by the company that develops the CMMS, containing all information considered relevant by the company. It should be the client who fills this document, since they know best their maintenance items.

The items codification rules should also be clear before importing any data, having the "courage" to break with any former codification in case they do not make sense.

The acquisition of a CMMS, a change or an acquisition for the first time, is an opportunity to "put its house in order". Allowing the company to transform potential bad habits in good practices. Learn new processes and concepts. It is a good moment to (re)do an inventory of items and understand the maintenance level that makes sense to each reality (does it make sense to consider a motor as a maintenance item?). Through the advisory of a consultant, this process will be much simpler and definitely will have more chances of being successful in the future.

Import? Having in mind, and avoiding the situations described above (inconsistency on codification, excess of information, poor quality data, resistance to change…), yes! But not everything makes sense. Otherwise, the adoption of a (new) CMMS might not be necessary.

References

[1] CABRAL, José Paulo Saraiva, Gestão da Manutenção de equipamentos, instalações e edifícios, LIDEL, 2013