

The method of information interaction management of project bureau specialists

The new method of the structure of information interaction management of project bureau specialists is proposed.

Modern CAD / CAM / CAE and PDM systems have considerably improved the efficiency of design work at design and technology bureau and enterprise' departments. At the same time, there are weakly formalized information interrelations and interdependencies in the design process, automation of which will allow the specialists of the project bureau of the enterprise to take into account the potential functional capabilities.

The analysis of scientific work on the management of information interaction of specialists of design bureau showed that there are no solution found for the construction of the method and means of information management of coordinated interaction of specialists in real time taking into account the human factor, which will allow specialists of different automated systems of a single information space to streamline the time of access to data, describe the data value, time for creation and reorganization of the information base, the time of input of information, enhance the reliability of the input.

A separate task is the integration of the information environment and creation of distributed data entry systems with different levels of capability to edit and publish them. There is a solution to this problem the usage of modern technology as an enabling environment for integration and aggregation of large volumes of heterogeneous data, the availability of advanced search mechanisms, content personalization tools for a particular specialist.

To solve the previously mentioned tasks can be used the tags. These are words (or phrases) by which a specialist may potentially will to find your document, article, instruction, etc. The tags are short search requests. To select a tag from the message text use a special format that isa combination of the sign "#" (a grid, or octotorp) with a subsequent word or phrase, written without space (for example: # aviation2018). This method is simple in implementation, widely used in the Internet, and in case of absence of variety in the interpretation of the term and lexical construction (what is appropriate on industrial enterprise) it allows to provide the necessary adequacy.

It is important to use the most overall description tags according to the information. After reading the whole list of tags a specialist will be able to almost unmistakably answer what the information is about and decide whether it will really be useful for him. However, here and everywhere the most important thing is the measure! A few tens of tags for each article will no help to create the order but also complicate the structure. Therefore, it is worth dwelling on the 5-8 tags that most accurately

describe what is described in this document, article, instruction. If a tag is composed by two or more words we will use CamelCase. A tagged document should be designed in such a way that it adds some information value to the specialist. The information tagging is intended to eliminate the need for more sophisticated methods such as computer analysis by adding semantic information. The appliance and processing of tags allows to index, search, store and reference to encoded data, and information can be reused or combined with other data. The study of tagging at enterprises has shown that tagging is a powerful tool for describing and identifying the interest of specialists and the prospects for its usage in organizing the information interaction of the specialists of the integrated information environment of the enterprise.

The tags can be assigned automatically, based on the analysis of the content of the information objects, as well as manually by a specialist.

To reduce this subjectivity it is necessary, firstly, to recommend the usage of only working terms, and secondly, to provide an input in the dictionary of previously used terms (that are used for a long time and are supported by many modern tools by their means of editing ontologies).

The usage of the concept of tagging allows to provide a unified terminology and build a unified tracking system for the behavior of professionals.

It is also worth noting the main differences in the usage of this approach in enterprises and compare it with the task of organizing virtual communities of the Internet. On the web the online user activity is mostly based on short-term or long-term interest that is changing rapidly and depends on the design.

When organizing information interaction the specialists solve a slightly different task that is, on the one hand, an optimization of the search for the necessary information and, on the other hand, people who can provide it and increase the effectiveness of interaction between specialists. Therefore, the interest is more determined: while the problem is not resolved, users are unlikely to stop working. But also as in the case of virtual communities of the Internet, the processes of interaction at domestic enterprises still maintain high dynamics, the specialists often switch between different tasks and change the strategy of interaction.

After analyzing the need of appliance of tags that will be used by the design bureau specialists, I highlighted the following:

- 1) <gendoc> - (general documents) main document.
<adddoc> - (additional documents) supporting document.
- 2) <genpur> - (general purpose) total value.
<spepur> - (special purpose) special value.
- 3) <name> - document's name 1-2 tags.
- 4) <description> - document's description 1-2 tags.
- 5) <areaofuse> - area of usage 1-2 tags.

Example of tagging for this article:

#gendoc

#spepur

#method #control

#interactionOfSpecialists #tags

projectOffice #productionIndustry

Unlike already existing methods, this one will structure the information objects (IO) and facilitate the management.

The essence of the method is to create an information integrated environment (IIS) of interaction of specialists with the help of two subsystems - the subsystem of the analysis of the activity of specialists and the subsystem of the correspondence of interests (relevance) of specialists. With this IIS, the input experts will be able to analyze the new IO and IO received, and we will receive requests and a cloud of tags at the output. This will help to ensure the information interaction of project bureau specialists, as well as improve the quality of documents, reduce time to find the necessary information, increase reliability and access of data.