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IMPROVING KNOWLEDGE SHARING WITH THE HELP OF A COMMON FRAMEWORK FOR
SOFTWARE TOOLS

Abstract

Having set up an environment for Knowledge Management within a project is the first step of sharing information and involves the use of tools as well as working techniques. This is already not a trivial task but ultimately leads to better results in the project.

To use the same set of tools on different projects is mostly difficult as especially software made for space projects is usually based on very specific requirements and therefore cannot be easily used in another context and to develop new applications every time needs a lot of resources. Moving from managing to sharing knowledge is even more complicated. Sharing data between different tools can be quite challenging unless a dedicated interface is agreed upon before the development of the software.

One solution is to have a common ontology for the exchange of knowledge that all parties stick to. But depending on the type of information, especially when it comes to more technical data, it is very hard to satisfy all disciplines while agreeing on a common format.

Another possible solution for this scenario is to have a common open-source framework and develop specific tools in the form of add-ons. This framework covers the general aspects that every tool has to take care of, like user authentication. Other project specific features can be developed by the individual users and made available to either the whole community or to a part of it. The overall framework sets up some basic level of understanding like using the same programming language, sticking to some general design rules and ensuring a global data exchange protocol. In that way different projects can implement their requirements without having to start from scratch with a new tool as some functionality is already there. In addition, using the open-source approach also helps to save resources as it can save time to start with already existing applications and add new features where necessary.

This paper describes how having a common framework for software tools can help to share information between different projects while also simplifying the development process of these tools.