

ABSTRACT

Once again today's information age influences the way an organization manages their large amount of information. In particular, the petrochemical and petroleum refining company have varieties of information flowing around the organization. Not only different sources of data generated which results in a different nature of information, but also different end user's requirements depending on their position and their usage of the available information, for example, a need for technical study, performance monitoring, equipment and process monitoring, and business decision making, etc. The organization definitely needs tools in management information system which enables it to manage different sources of data and provide suitable information for each user to fulfill one's requirement. This project provides a guideline as a model description, so called Hydrocarbon Data Supervisory system or HDS. The HDS system conceptually integrates and manages (supervises) refinery information, which mainly consists of information from a plant control domain (shorter cycle time) and from a business control domain (longer cycle time).

The descriptive model of the HDS was developed from gathering practical problems seen in the organization, understanding users' and business' requirements, defining the description of the model and eventually determining the implementation requirements. The descriptive model development adapts the approach of the System Development Life Cycle. The benefits of having the HDS system can be quantified depending on size of the refinery business. Some commercial packages were studied as examples and discussed the features in the project as references for future development and implementation.