

Upgraded caster Level#2

The auto grading of slabs is done with the help of Caster Level#2 system.

It is essentially a decision making system where actual values are compared with the aimed values and finally, the information is sent to Slab Yard Management system (SYMS) and Level#3.

At present all the three casters (A, B, C) are having only one VAX system with a VMS operating system.

This architecture is deficient, in a sense that if this single server goes down due to some reasons, all the three casters get affected. Moreover, the communication with Level#1 system is through CM50S proprietary Honeywell software, which is not fully reliable.

In the upgraded caster level#2, the single VAX server is replaced with three windows based servers & OPC has been used for Level#1 communication.

Also, the back end database and front end HMI's have been upgraded to newer versions so that the response and communication between interfaces becomes much faster.

This upgradation has resulted in some enhancements as mentioned below:

- Reduction of downtime, in case one of the server goes down but other servers are working fine.
- Ease of maintenance – back up can be taken for each server, depending on which caster is under maintenance.
- Automatic generation of graphs for IF grade slabs to ease decision making.
- Reduction of downtime in case of slab length mismatch.
- Development of simulator as back up for missed signals from Level-1
- Provision for manual input wherever required.
- Formulae manipulation at screen level.
- Distributing the consolidation process across entire length of the slab.

Implementation of PLM (Product Life Cycle management) at Automation Division

Some of the Quality Manual documents in Automation Division were not process driven. Users got compelled to forge such documents for ISO Audit. Increasing Attrition Rate combined with non-availability of single point document reference & non availability of work flows for documents made it difficult to delegate responsibilities to a newly joined professional. Processing time for project related documents were comparatively high. Large amount of time was wasted in non-productive activities like retrieving a document or filing a document.

Project status was monitored through formal/informal communications with Project Lead. Some times it used to take a lot of time to arrive at the actual status of the project.

In view of the above & many more, it was decided to implement WRENCH CPD – a PLM software, with the following objectives:

- A common document/ drawing management system across the division
- Establish a common Engineering Change management system.
- Ensure that the latest drawings/documents are available for downstream and upstream with minimum time and effort.
- Reusability of data.
- To maintain controlled copy of AutoCAD drawings.
- Enable project scheduling and tracking.
- Reduce/ eliminate the non-value added time for storing/searching/retrieval of documents/ drawings.
- Reduce or eliminate the physical storage space for drawings/ documents.
- Enable safety and security of the drawings/ documents
- Archiving, retraction and reuse of in-house technology.

Accordingly, the software was implemented in a record time of 2 months with a minor customization, and now all Automation Projects are being managed through WRENCH.

Mr. B.K. Nanda
Head Quality