

Scientific and Engineering Computation System at Kawasaki Steel

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FACOM VP-50

Synopsis :

At Kawasaki Steel, a scientific and engineering computation system has been developed, from the earliest utilization of management science, through its applications ranging from the heat transfer analysis, structural analysis and control system to the analysis of a large scale model by supercomputer such as the fluid flow analysis. This paper describes the features of main applications which include the heat transfer analysis of blast furnace hearth molten metal flow analysis in the continuous casting mould stress analysis of the work roll shift mill, and simulation of hot tandem mills. The scientific and engineering computation system was developed on the basis of FACOM VP-50 supercomputer by using the corporate network. Additionally, a user supporting system which was very powerful and useful in the scientific and engineering computation was developed and it is also summarized here.

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要旨

川崎製鉄における科学技術計算の初期の管理手法の利便から始

Table 1. History of scientific computing systems.

Table 1

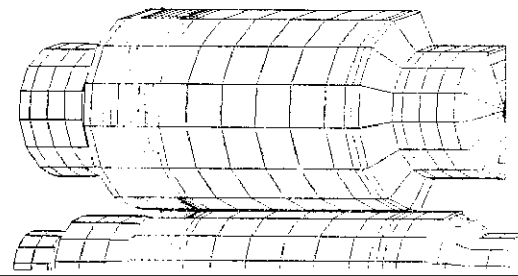
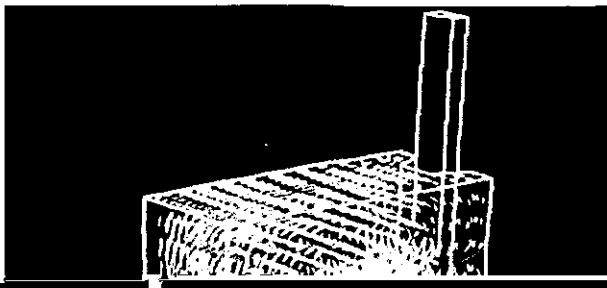
Table 3 List of typical application examples

Iron making	Steel making	Rolling
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本事例は、最近注目を集めるようになった境界要素法と実験的回

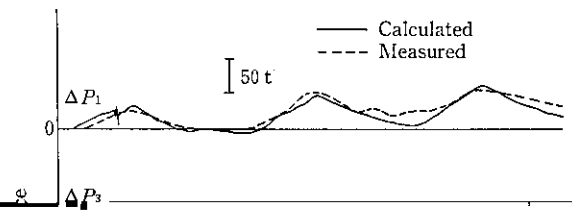
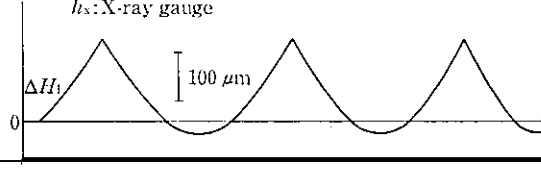




Backup
roll

Work

H_1 : Entry thickness at the 1st stand
 h_i : Exit thickness at the i th stand
 h_s : X-ray gauge



- 6800 - < 本種 A P の実行 >

達しているが、今後とも、設備改善、運営技術改善および