

A KNOWLEDGE-BASED SYSTEM FOR THE SELECTION OF ASSEMBLY SEQUENCE

Hong-Seok Park* and Gilsang Jang**

Abstract: Many industrial products can be assembled in various sequences of assembly operations. To save time and cost in assembly process and to improve the quality of products, it is very important to choose an optimal assembly sequence. In this paper, we propose a methodology that generates an optimal assembly sequence by using various methods and the knowledge of experts. To illustrate the effectiveness of the proposed methodology, a knowledge-based system is developed. The built system is applied to the case of UBR(Unit Bath Room). The applying result showed the applicability of the developed system.

Key words: Disassembly rules, Subassembly generation, Assembly parameters, Alternative sequence evaluation

* Dr. Hong Seok Park, Head of Manufacturing Planning, School of Mechanical Engineering, Ulsan Univ., P.O. Box 18 Ulsan 680-749, Korea, Phone: 0082 052 259 2294, Fax: 0082 052 259 1860, E-mail: hosk@uc.u.ulsan.ac.kr

** Dr. Gilsang Jang, Technical Division, Oracle Korea Ltd., P.O. Ulsan Office, Jeong Woo B/D 3F, 1319-15, Dal-Dong, Nam-Gu, Ulsan 680-030, South-Korea, Phone : 0082 052 267 4262, Fax: 0082 052 267 4267, E-mail: gsjang@kr.oracle.com