Developmental Study on GEM Communication Module Programming of Semiconductor Manufacturing Equipments

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ABSTRACT

This paper is based on the development of core communication programming of semiconductor manufacturing equipment and communication module which is developed by Chung-Shan Institute of Science and Technology. Studying and developing the component of GEM (GENERIC MODEL FOR COMMUNICATIONS AND CONTROL OF MANUFACTURING EQUIPMENT) standard to build up the objects of core communication programming by GEM capabilities. It also provides attributes and method to expand the function of communication module and flexibility and support semiconductor equipment automation. GEM is the prerequisite condition for integrated communication framework. The GEM standard is a model of behavior to be exhibited by semiconductor manufacturing equipment in a SECS-II communication environment. The GEM standard contains two requirements; one is fundamental, and the other additional GEM capabilities. The development of standard GEM communication capability mainly is based on fundamental GEM requirements. The developing software is ATL3.0 of VC++ 6.0 (the implement for COM). The communication module is designed by VB. Each capability is considered to be the object and thus developed in succession which is later placed into VB to perform.

Keywords : GEM ; SECS-II ; Communication Module ; VB ; VC