Development of Configuration Software of Space Environment Simulator Control System Based on Linux

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Abstract : This paper presents a configuration software solution in Linux, which is used for the control of space environment simulator. After introducing the structure and basic principle, it is said that the developing of QT software frame and the dynamic data exchanging between PLC and computer. The OPC driver in Linux is also developed. This driver realizes many-to-many communication between hardware devices and SCADA software. Moreover, an algorithm named “Scan PRI” is put forward. This algorithm is much more optimizable and efficient compared with "Scan in sequence" in Windows. This software has been used in practical project. It has a good control effect and can achieve the expected goal.

Keywords : Linux OS, configuration software, OPC Server driver, MYSQL database
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