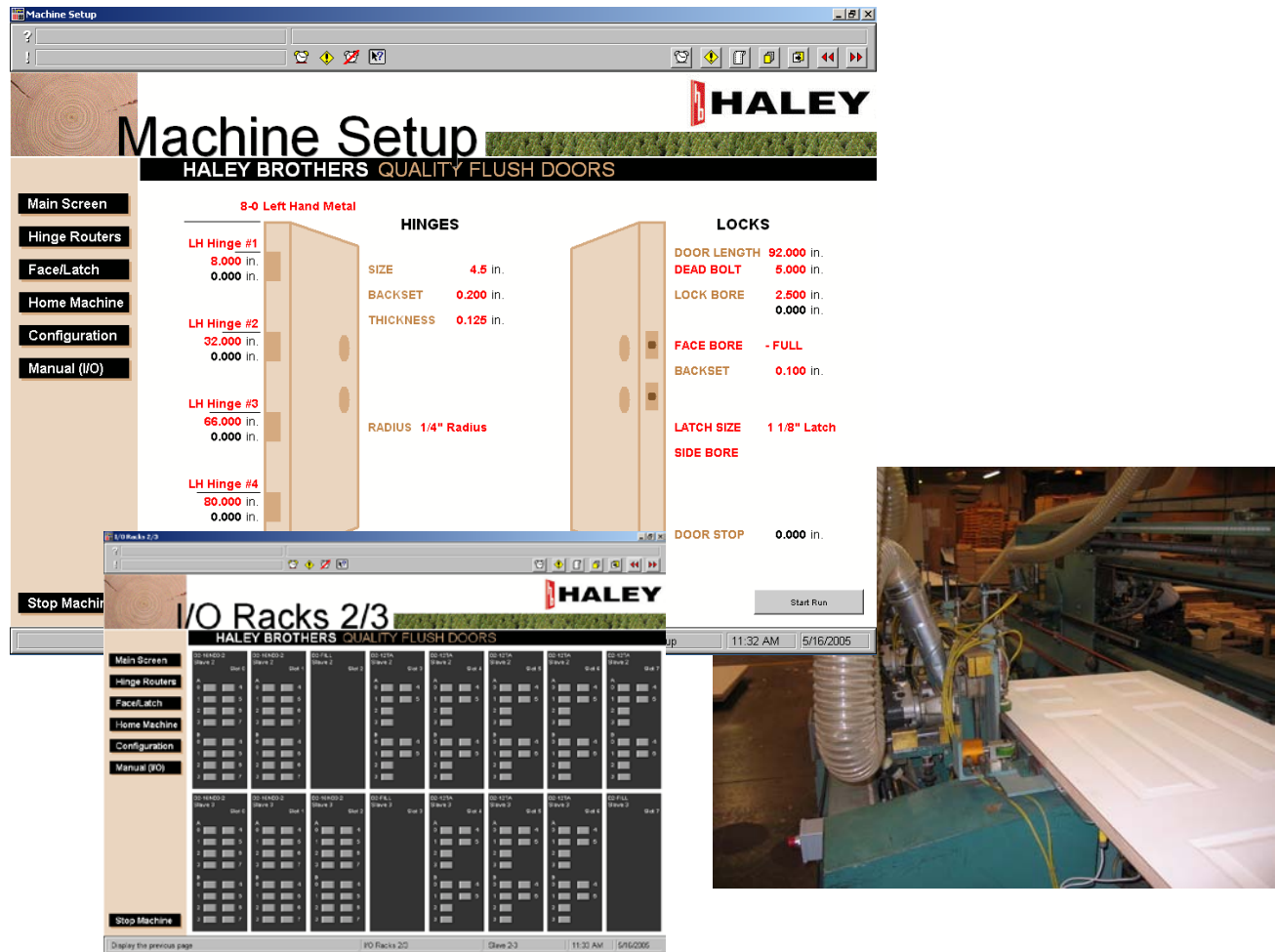


**Overview**

Fifty years of steady growth have made Haley Brothers one of the nation's largest manufacturers of premium quality architectural and residential flush wood doors. Part of their growth requires that they automate some of their existing older machinery. Enterprise Automation was hired to program a control system automating a door prefit machine previously operated from a panel with local hand controls.

**Solution**

An Automation Direct PLC was used to control this system. It was selected by the customer based on its' pricing and their familiarity with the hardware. CitectSCADA was utilized as a basic HMI and for future expandability. Enterprise Automation and Haley Brothers personnel worked closely together to specify and configure the motion control hardware. Nine stepper motor based axis were configured to replace original hand controls. Enterprise Automation programmed the PLC with several standard door configurations that were flexible enough to encompass all of the desired machine functions. Additionally, Enterprise Automation programmed the CitectSCADA HMI screens to resemble the pre-existing Haley Brothers work order forms. As a result, door setup time was significantly reduced as well as operator training time, thereby increasing production.



**Technology**

CitectSCADA communicated to the Automation Direct PLC via Ethernet using one of CitectSCADA's built-in Automation Direct drivers. A Dell workstation computer was used for the CitectSCADA. This unit was placed in service 2<sup>nd</sup> Quarter 2004 and is still in service today.