TECHNICAL NOTE TNOI43

Title: Connecting the PFM to G3 / DSP / Modular Controller

Product(s): PFM, G3 / DSP / Modular Controller
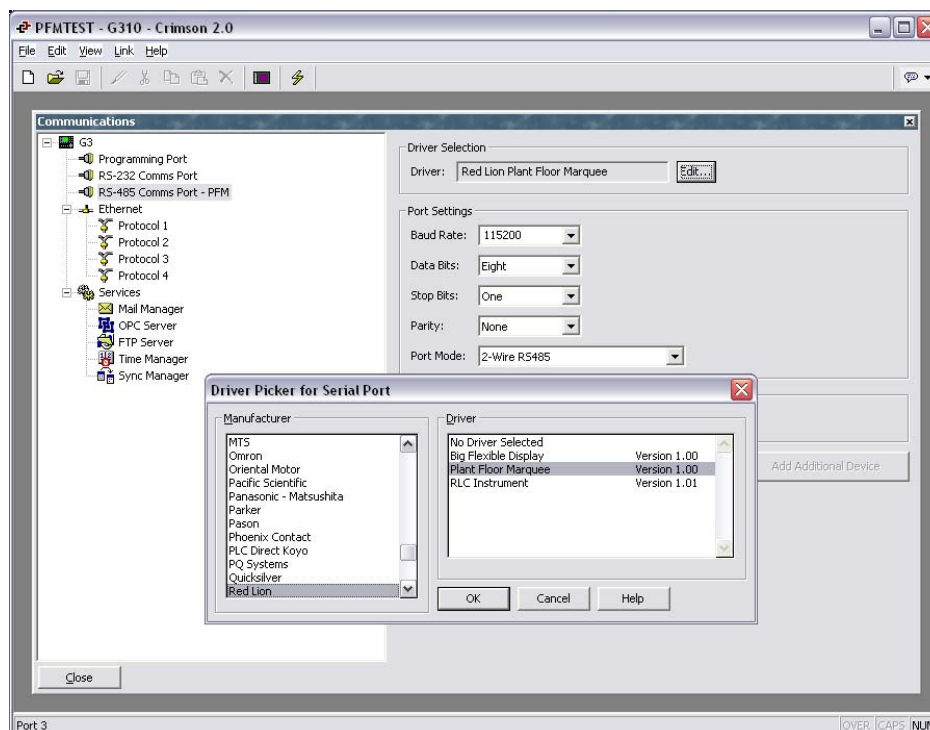
ABSTRACT

The purpose of this document is to describe the steps necessary to connect the PFM to a G3 HMI or DSP / Modular Controller.

INTRODUCTION

The PFM – Plant Floor Marquee series are multi-color LED displays designed to provide vital process and production information to personnel at a glance. The PFM must be used in tandem with Red Lion's G3 series of HMIs, Data Station Plus or Modular Controller series. The PFM communicates to its host via RS485 and uses a proprietary protocol. Since the PFM is a slave display the configuration is done in the host controller's database.
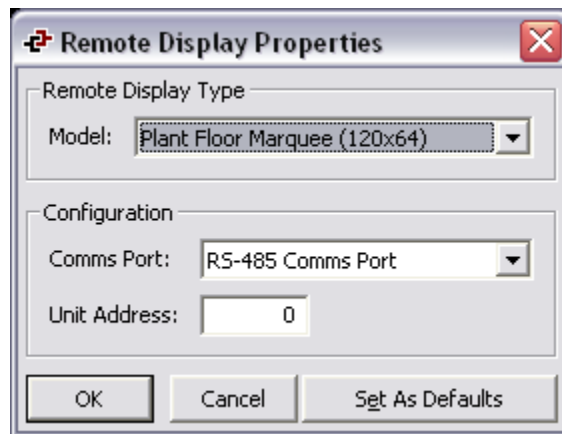
First the RS485 port of the host needs to be configured for the Red Lion Plant Floor Marquee driver.
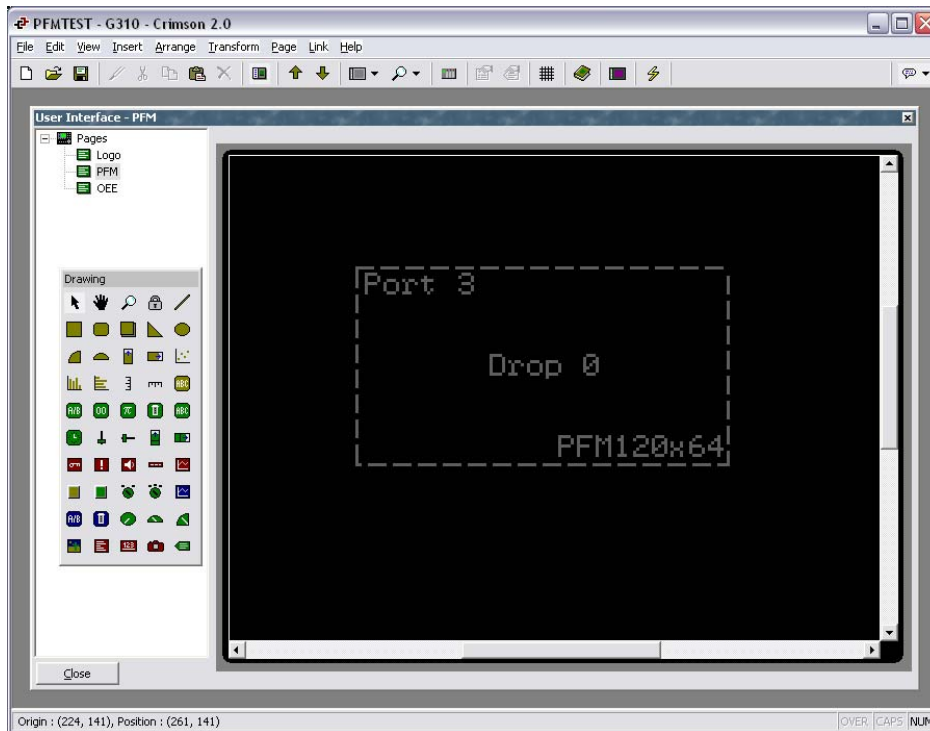
The default settings for this driver should be used to communicate to the PFM. Next we will move to the User Interface section to configure what will be transmitted to the PFM. Select the Remote Display primitive from the drawling toolbox and place the primitive on the display.
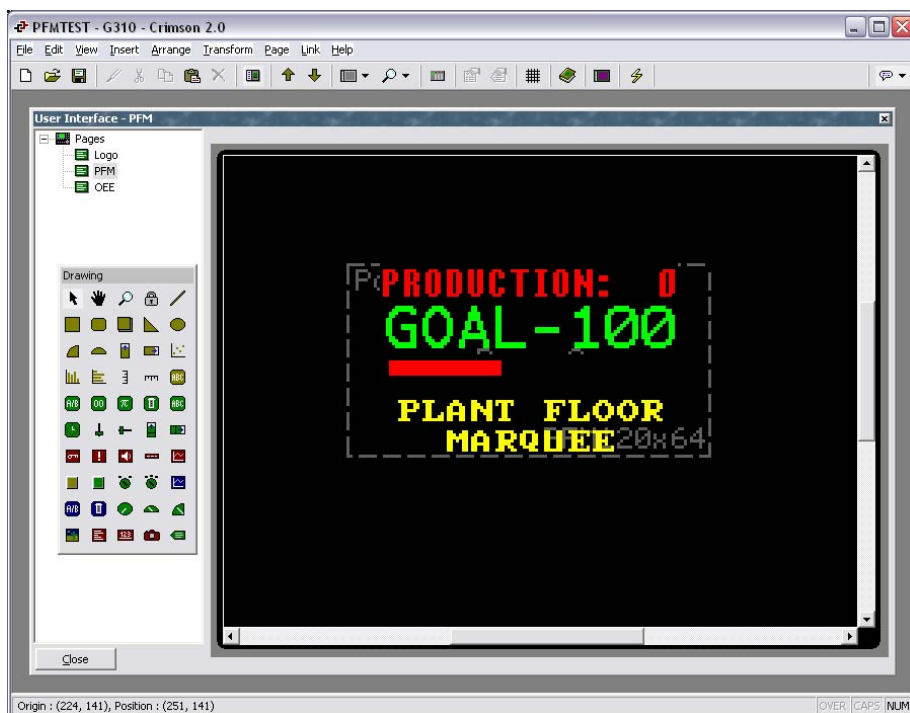

Open the properties and choose the proper model of the attached PFM display. Select the Comms port that will be used to connect to the PFM. Generally this will be configured as RS-485 Comms Port. Finally we will select the address of the PFM.

The default is zero, which is the broadcast address. This selection can be used when a single PFM is attached or if the same message should be displayed on multiple PFMs.

Once the primitive is configured you will see a transparent box on the display, which represents the pixel size of the selected PFM.

Any text or graphic that falls within this box will be automatically transmitted to the PFM. When there is a large difference in pixel ratio between the host and PFM the zoom function will help with configuration. If multiple PFMs are connected to the host you may have multiple primitives on the same page. Each primitive will transmit its unique data to the selected PFM.

Note: If the host navigates to a page that doesn't have a remote display primitive configured the PFM will retain its last image and will not update.