

Pro-Bel UMD Driver

ProBelUMDDrv.exe

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1 Introduction

1.1 Overview

The control of UMDs was historically achieved by using Applcore. This driver now gives control through a standard driver.

2 Setup

2.1 Overview

The driver works by connecting to an External Infodriver. The start-up parameter is the device number of the Infodriver.

2.2 Com Port Settings

Serial connection to each device is RS422/485.

ProBelUMDDrv.EXE uses the following com port parameters

38400 baud

8 bits

1 stop bit

Even parity

2.3 BNCS configuration

This driver is compatible with configuration paths:

- V3 & V4.5 environmental variables
- Path set in C:\bncs_config.ini
- C:\Windows

2.4 .INI File Settings

The following settings are placed in the relevant DEV_XXX.INI file if they are not present and can be used as defaults

[ProBelUMDDrv]

DebugMode=1

LogMode=0

Port=1

Speed=38400

DataBits=8

StopBits=1

RefreshStart=1

Parity=E

DISPLAYTYPE=Dynamic

DEVICETYPE=6003

RefreshEnd=128

Most of the settings are self-explanatory. RefreshStart and RefreshEnd are the start and end infodriver slots to which UMDs are connected. These are used for the background updates to be sent via the serial port to the devices (UMDs).

If the device is single display then UMD address is same as the slot to which it is connected i.e., there is one-to-one mapping. The minimum value of RefreshStart is '1' because the infodriver slots start from '1'.

The UMD type describes what manufacturer of UMD is connected to the chain. In dual display UMDs the each half of the display is set through its own slot. DisplayType may be dynamic or static and DeviceType may be 601x or 614x i.e. UMD device number.

The default value of DISPLAYTYPE is Dynamic and the default value of DEVICETYPE 6003.

3 Operation

3.1 Slot allocation

The following lists the slot allocation

Slot Index	Read / Write	Description
1 – 256	RW	Text
1001 – 1256	RW	Cue 0 = off 1 = left cue on 2 = right cue on 3 = both cues on
1501 - 1756	RW	Brightness 1(Dim) to 8(Bright)

3.2 Command characteristics

Cue and Brightness slots cross update each other so that there is a full choice on entering cue and brightness or just cue or just brightness.

In single display the slot ranges are limited to 128 as this is the maximum amount of physical UMDs allowed on the chain.

In Dual display, slots 1 and 2 are concatenated to the first UMD, slots 3 and 4 for the second and so on.

3.3 Limitations

None

3.4 Using Driver in Dual Dynamic Displays Mode

If the driver is used with Dual Dynamic Displays (Dual 8 Character UMD e.g. 6013 and 6143) the slot ranges are extended up to 256. Everything remains the same except that the information to be sent to UMD consists of the contents of two consecutive slots (starting with info-driver slots 1 and 2). The slot contents are concatenated and the CUE (Slot 1 for left hand display and Slot 2 for right hand side) values sent as combined 'two-packet' to the UMD.

Dual 8 character displays are treated as a single display of 16 characters, the first 8 characters for the left-hand side and the second 8 characters for the right-hand side.

As one brightness data is used for both the display even slot values are used for it (1500, 1502, 1504 and so on...)

Though each half has got the same physical address, the UMD driver treats them as separate entities. The text, CUE and brightness should be set as it would be done for a single 16-character UMD.

Note: "Static" mode has not been implemented

3.5 Resilience and redundancy

4 Version history

4.1 Driver version

Version	Date	Details	Name
1.00.00	March 2013	Initial development	Partha Sarathy

4.2 Document Version

Version	Remarks	Date
0.1	First draft for comment	22.03.2013

