

# Controlling buzzer and displayed page in UniOP touch panels

TN-014  
rev. 1



cybroTech

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Cybrotech Ltd  
14 Brinell Way, Harfreys Industrial Estate  
Great Yarmouth, Norfolk, Nr31 OLU - UK  
tel: +44 (0)1493 650 222  
[www.cybrotech.co.uk](http://www.cybrotech.co.uk)  
[info@cybrotech.co.uk](mailto:info@cybrotech.co.uk)

## Safety information

This manual contains notices to which you should pay attention to ensure personnel safety, as well as to protect the controller and the connected equipment. These notices are highlighted in the manual by a warning triangle:



**Warning**

which indicates that death, severe personal injury or substantial property damage can result if proper precautions are not taken.



**Caution**

which indicates that minor to medium personal injury or property damage can result if proper precautions are not taken.

### **Warning**

This product can only function correctly if it is transported, stored, set up and installed correctly, and operated and maintained as recommended. Failure to comply with applicable codes and standards can result in damage to equipment or serious injury to personnel.

To minimize the risk of potential safety problems, you should follow all applicable local and national codes that regulate the installation and operation of your equipment. These codes vary geographically and usually change with time. It is your responsibility to determine which codes should be followed, and to verify that the equipment, installation, and operation comply with the latest revision of these codes.

We do not guarantee the products described in this publication are suitable for your particular application, nor do we assume any responsibility for your product design, installation or operation.

# 1 Introduction

This document explains how buzzer in UniOP touch panels can be controlled by application running in CyBro-2 controller and how to control which page is displayed.

## 2 Enable/disable buzzer

Please note to check in the technical specification if your UniOP touch panel has a buzzer installed.

When designing the interface that will be running on the selected touch panel you can also enable/disable the buzzer. Buzzer is an audible signal that, if enabled, is activated when any key is pressed on the panel.

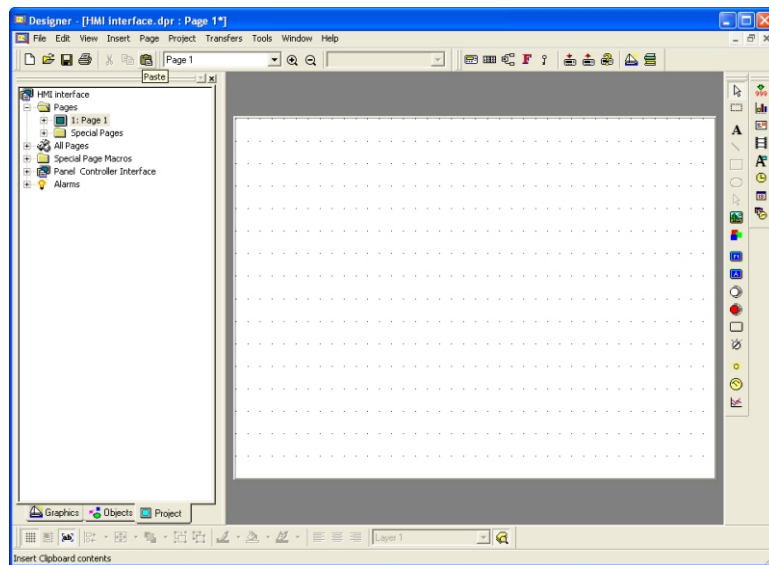


Figure 1: Designer 6 tool window

In Designer 6 (Figure 1) you can disable buzzer by checking **Disable Buzzer** option on **Settings** tab in **Panel Setup** window (Figure 2) located in the **Project** menu.

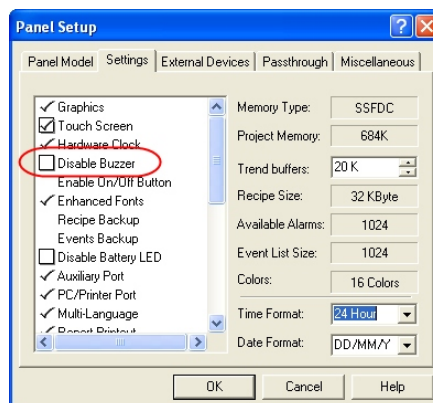


Figure 2: Panel setup window

### 3 PLC application control

Buzzer and displayed page can be controlled with connected PLC as described in the steps below. Option set in chapter 2 is irrelevant to the control option explained in this chapter.

1. Create application in CyPro that will run on CyBro-2 controller.
2. Create following variables in CyPro that will be used for buzzer and page control:

<i>ControllerControlWord</i>	WORD
<i>CurrentPanelPage</i>	INT
<i>WantedPanelPage</i>	INT
<i>PanelPLCRegister</i>	ARRAY [0.. 1] of INT

3. Add following line of code somewhere in CyPro application where it will be processed every cycle:

```
PanelPLCRegister[0]:=WantedPanelPage;  
PanelPLCRegister[1]:=int(ControllerControlWord);
```

4. Save CyPro project.
5. Import tags from allocation file from CyPro project into Designer project.
6. In **Project -> Panel Controller Interface...** window check **Enable RDA**, **Panel** and **PLC** option, link reference to tag *Non-IO.CurrentPanelPage* (under Panel) and *Non-IO.PanelPLCRegister[0]* for PLC, set update cycles to desired value (min. 500 msec) and check option **PR** and **Ctrl** (Figure 3).

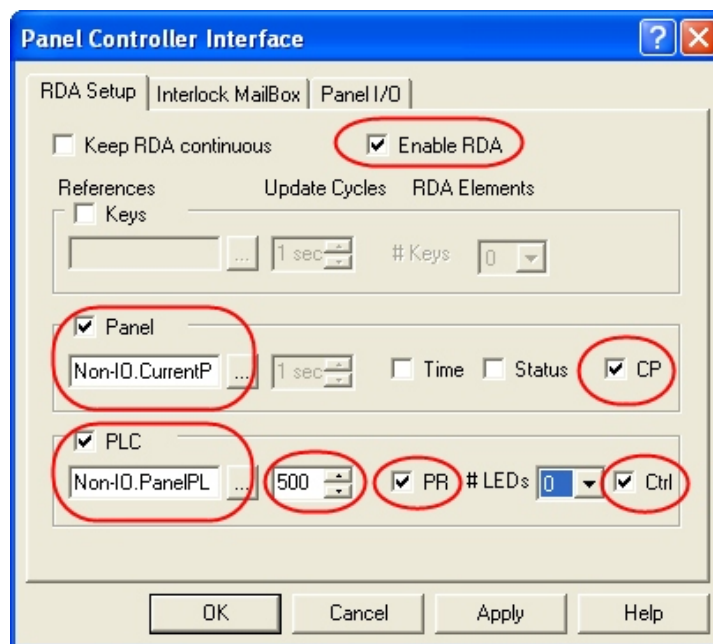


Figure 3: Panel Controller Interface

7. Click **Apply** and **OK**.
8. **Download** finished interface to UniOP panel.
9. **Download** CyPro application to CyBro-2 controller, put controller to **RUN** and connect it to UniOP.

To activate the buzzer from controller use bits 6 and 7 in the *ControllerControlWord* variable defined in CyPro application.

By setting bit 6, buzzer control is given to PLC and the PLC switches the buzzer on/off using bit 7.

Two bits are used for this:

*ControllerControlWord.6* bit:     0 - buzzer standard, *(uses option discussed in chapter 2)*  
                                          1 - control from PLC

*ControllerControlWord.7* bit:     0 - buzzer off,  
                                          1 - buzzer on

User has information on the current page that panel is displaying in variable *CurrentPanelPage*.

The page to be displayed can be selected either by the operator from the front panel keypad or by the controller itself.

The controller selects the page to be displayed by writing the corresponding page number into the *WantedPanelPage* variable.

**Note that once the panel has changed to the corresponding page, the user needs to write a 0 back into *WantedPanelPage* variable in order to return control back to the panel keys.**

When the panel detects a page request from the controller, it checks the front panel keyboard and the Expanded Keyboard (if present). If no key has been pressed for the last three seconds, the page selected by the controller is displayed. While a controller page request is active (*WantedPanelPage* not 0), the operator will not be able to change pages using the arrow keys. If this is not done, the user will be 'stuck' on that page.