How to configure RS232 for SMP players

Introduction

This document will guide you to configure your system with patches provided by CAYIN. Follow the procedures below to control SMP players via RS232 easily with the extra new functions.

Get Patches from CAYIN

The COM port control patches are now available for the following SMP models and versions. Users can download it from PartnerNet by the following URL.
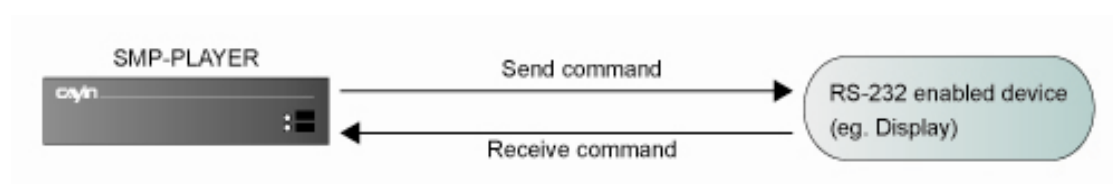
Patch	Model	Version	Downloading URL
P09264.psu	SMP-WEBDUO	1.0	http://partner.cayintech.com/download/sw/P09264.psu
P09265.psu	SMP-PROPLUS	1.0	http://partner.cayintech.com/download/sw/P09265.psu
P09266.psu	SMP-WEBPLUS	3.5/4.0	http://partner.cayintech.com/download/sw/P09266.psu
P09267.psu	SMP-WEBPLUST	4.0	http://partner.cayintech.com/download/sw/P09267.psu
P09268.psu	SMP-PRO3	1.5/2.0	http://partner.cayintech.com/download/sw/P09268.psu
P09269.psu	SMP-PRO3N	1.5/2.0	http://partner.cayintech.com/download/sw/P09269.psu
P09270.psu	SMP-WEB3	1.5/2.0	http://partner.cayintech.com/download/sw/P09270.psu
P09271.psu	SMP-WEB3N	1.5/2.0	http://partner.cayintech.com/download/sw/P09271.psu
P09294.psu	SMP-WEBPLUS	4.5/5.0	http://partner.cayintech.com/download/sw/P09294.psu
P09295.psu	SMP-WEBPLUS-T	4.5/5.0	http://partner.cayintech.com/download/sw/P09295.psu
P09296.psu	SMP-PRO3	2.5/3.0	http://partner.cayintech.com/download/sw/P09296.psu
P09297.psu	SMP-PRO3N	2.5/3.0	http://partner.cayintech.com/download/sw/P09297.psu
P09298.psu	SMP-WEB3	2.5/3.0	http://partner.cayintech.com/download/sw/P09298.psu
P09299.psu	SMP-WEB3N	2.5/3.0	http://partner.cayintech.com/download/sw/P09299.psu

Procedures
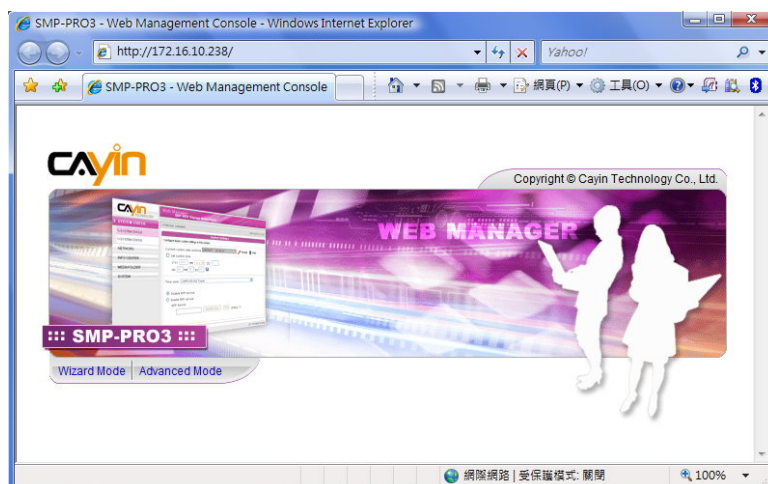
Step 1: Plug RS-232 cable into SMP player

SMP supports serial ports with 9 pins D-type socket. Since socket types may differ from devices, some special cables such as "null modem cables", "pin converter", "gender changer" or "custom made cables" are sometimes required. Please check your device manual for detailed information.

Step 2: Connect Your PC to the Web Manager

Enter the IP address in a browser to connect to the Web Manager.

Step 3: Upload the patch

1. Go to **System Status -> Basic Information** to check your product model and firmware version. Please make sure you upload the correct patch for your product.

2. Go to the **System -> Maintenance** and click **[Browse...]** button in system maintenance area. You can select and upload the patch file (.psu or .fsu) here. The system will restart to apply those changes. Please login to Web Manager again and go to **System Status** to check the patch information in Firmware Information area.

Step 4: Configure RS232 settings

1. Go to **System -> System** and find the RS-232 Control area at the bottom of this page.

RS-232 configuration

For functional communication through a serial port interface, conventions of Baud rate, Data-Bit, Parity, Flow Control and Stop Bit are not pre-defined in RS-232. Please check your display manual for correct communication parameters.

For example, the communication parameters in the above picture are based on SONY display (including FWD-40LX2F, FWD-40LX2X, FWD-32LX2F, FWD-32LX2X, KLH-W32, and KLH-W26 models). Please make sure the parameters here are consistent with the connected device.

1. Communication Parameters

Communication Method	RS-232C
Synchronous Method	Asynchronous
Baud Rate	9600 bps
Character Length	8bit
Parity	None
Start Bit Length	1bit
Stop Bit Length	1bit
Flow Control	None

Configure RS-232(COM Port) commands

Press **[Add RS-232 Command]** to add commands to control SMP players.

With SMP-PRO/WEB series, you need to input the information below:

1. Command Name
2. Choose Command Type
3. Command String, either in ASCII or Hex format.

With SMP-PRO series, there are two types of commands: "Display command" and "User-define command". Please refer to your device manual to setup the corresponding command strings.

➢ **Display Command**

You can choose **"Turn on Display"** or **"Turn off Display"** command in "Display Command".

You will learn more information about how to execute those commands from the following sections.

If you choose "Display Command" to turn on/turn off the screen remotely or schedule when you want to turn off the screen, the system will automatically send such command to the display via RS232 port to turn on/turn off display power.

➢ **User-define command**

You can add at most 20 user-define commands to send command to your device which connects to SMP player. For example, you can control display's Contrast, Brightness, Auto Adjust…and so on via RS232. You can refer to the manual of the connected device for command strings.

For example, if you add a command to change Display Brightness (string: 8C10010232D1 (HEX)), you can press **[send]** to change the brightness value of display to 50.

➢ **Playlist Command**

This command is only for SMP-WEB series. After setting up these commands, SMP will wait for RS232 command to automatically trigger WEB playlist by **RS-232** tool (such as **docklight**, please refer to Appendix A) for serial communication protocols. **[Important]** You must send a complete "Receive command string" within one second from your PC, or the string will be treated as 2 different commands in SMP player.

The interface may be different from the model you selected. For SMP-WEB3, there is one web playlist and the playlist index begins from 0 to 9. For SMP-WEBDUO, there are two web playlists and the playlist index begins from 0 to 30. You can create your own string for Playlist command. Please make sure you set the same command string in both SMP and simulation tool.

Appendix A: Using Docklight to Send RS-232 Command

Docklight is a testing, analysis and simulation tool for serial communication protocols (RS232, RS485/422 and others). It allows you to monitor the communication between two serial devices or to test the serial communication of a single device. Docklight is easy to use and runs on almost any standard PC using Windows Vista/XP/2000/NT 4 operating system.
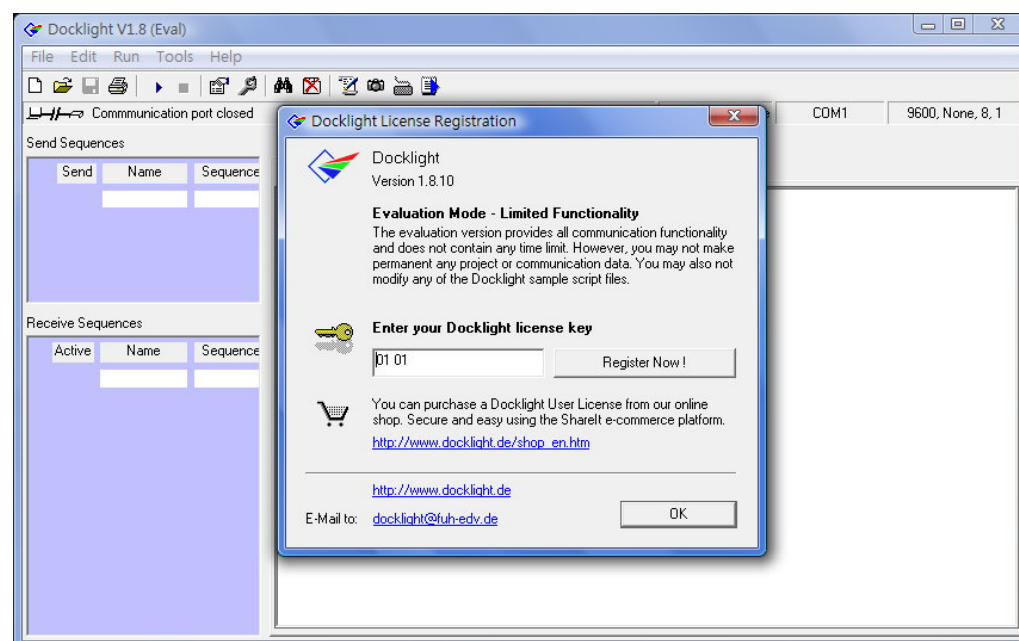
> **NOTE** Docklight is a shareware that can help you send/receive RS-232 string from your PC. You can also use other similar software to send or receive RS-232 strings. Please download Docklight from website http://www.docklight.de/
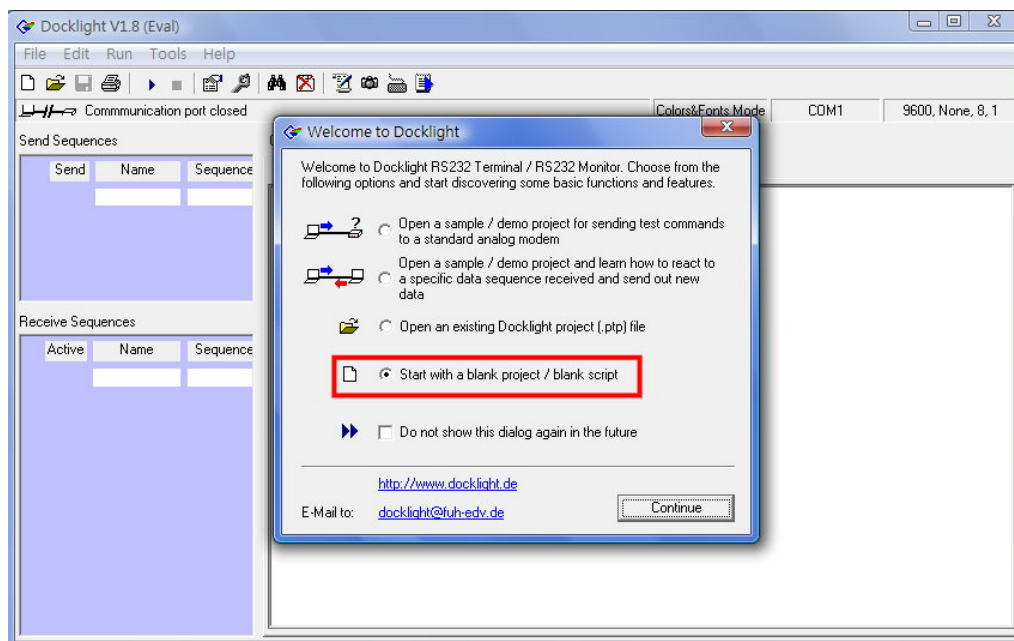
➢ **How to Use Docklight**

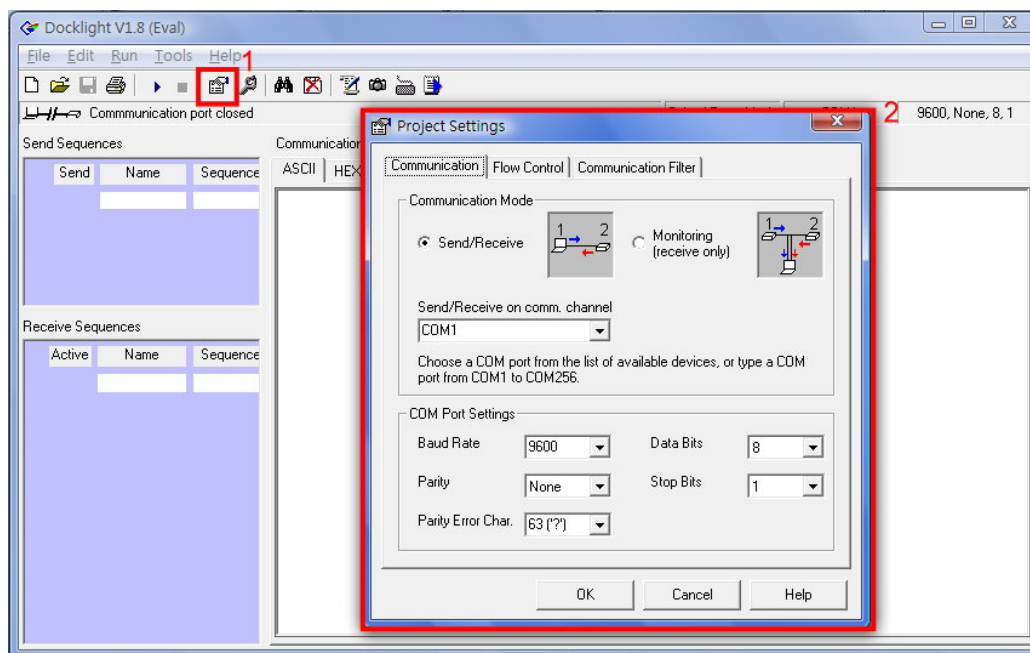1. After installing Docklight successfully, you can launch the program from desktop.

This is an evaluation version. You can press **[OK]** to continue or purchase a Docklight User License from its online shop (http://www.docklight.de/shop_en.htm)
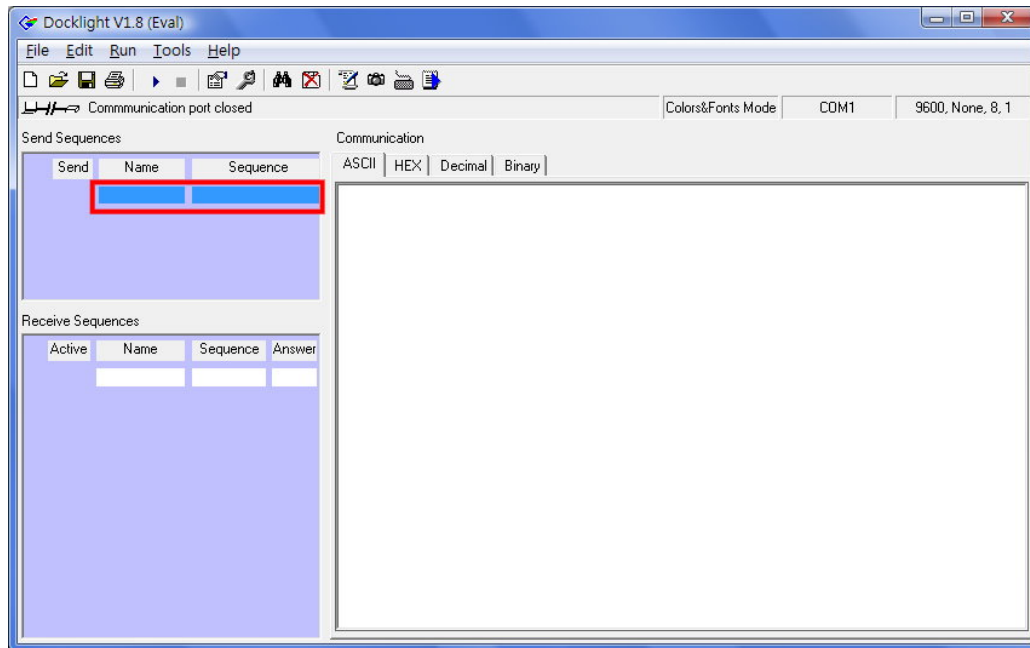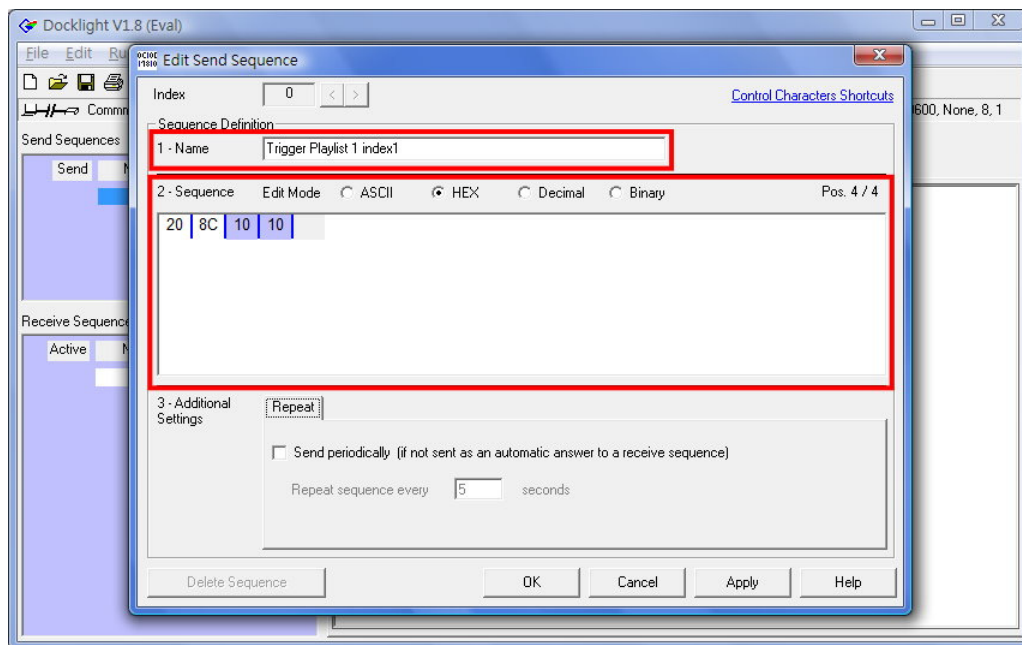
2. Press **[OK]** to continue.

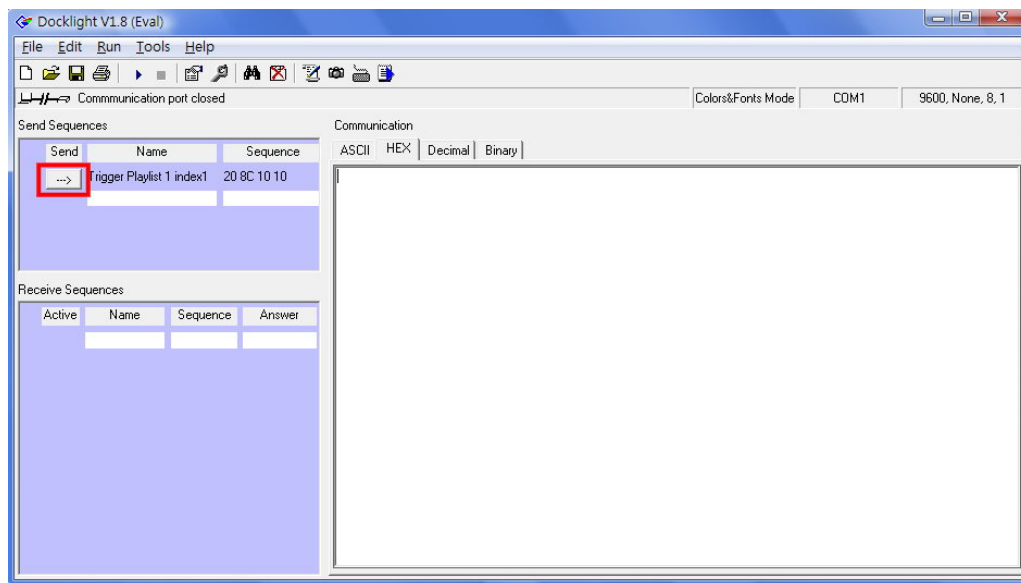3. Select "Start with a blank project / blank script" to continue.

4. Press "Project settings" to setup COM Port settings (including Baud Rate, Data bits, Parity, Stop Bits, and Parity Error Char). Please make sure the settings here are consistent with the connected SMP player.

5. Press the red frame area to add RS232 command.

6. Enter command name and command string, and press **[OK]** to save.

7. Press the right arrow button to send command to SMP player, and trigger Playlist 1 index 1.