

# How to configure RS232 for SMP players

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## 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.

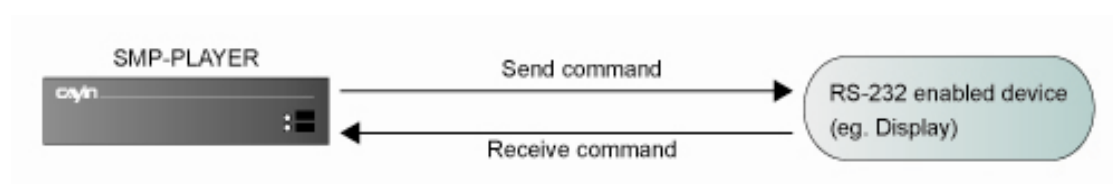
Patch	Model	Version	Downloading URL
P09264.psu	SMP-WEBDUO	1.0	<a href="http://partner.cayintech.com/download/sw/P09264.psu">http://partner.cayintech.com/download/sw/P09264.psu</a>
P09265.psu	SMP-PROPLUS	1.0	<a href="http://partner.cayintech.com/download/sw/P09265.psu">http://partner.cayintech.com/download/sw/P09265.psu</a>
P09266.psu	SMP-WEBPLUS	3.5/4.0	<a href="http://partner.cayintech.com/download/sw/P09266.psu">http://partner.cayintech.com/download/sw/P09266.psu</a>
P09267.psu	SMP-WEBPLUST	4.0	<a href="http://partner.cayintech.com/download/sw/P09267.psu">http://partner.cayintech.com/download/sw/P09267.psu</a>
P09268.psu	SMP-PRO3	1.5/2.0	<a href="http://partner.cayintech.com/download/sw/P09268.psu">http://partner.cayintech.com/download/sw/P09268.psu</a>
P09269.psu	SMP-PRO3N	1.5/2.0	<a href="http://partner.cayintech.com/download/sw/P09269.psu">http://partner.cayintech.com/download/sw/P09269.psu</a>
P09270.psu	SMP-WEB3	1.5/2.0	<a href="http://partner.cayintech.com/download/sw/P09270.psu">http://partner.cayintech.com/download/sw/P09270.psu</a>
P09271.psu	SMP-WEB3N	1.5/2.0	<a href="http://partner.cayintech.com/download/sw/P09271.psu">http://partner.cayintech.com/download/sw/P09271.psu</a>
P09294.psu	SMP-WEBPLUS	4.5/5.0	<a href="http://partner.cayintech.com/download/sw/P09294.psu">http://partner.cayintech.com/download/sw/P09294.psu</a>
P09295.psu	SMP-WEBPLUS-T	4.5/5.0	<a href="http://partner.cayintech.com/download/sw/P09295.psu">http://partner.cayintech.com/download/sw/P09295.psu</a>
P09296.psu	SMP-PRO3	2.5/3.0	<a href="http://partner.cayintech.com/download/sw/P09296.psu">http://partner.cayintech.com/download/sw/P09296.psu</a>
P09297.psu	SMP-PRO3N	2.5/3.0	<a href="http://partner.cayintech.com/download/sw/P09297.psu">http://partner.cayintech.com/download/sw/P09297.psu</a>
P09298.psu	SMP-WEB3	2.5/3.0	<a href="http://partner.cayintech.com/download/sw/P09298.psu">http://partner.cayintech.com/download/sw/P09298.psu</a>
P09299.psu	SMP-WEB3N	2.5/3.0	<a href="http://partner.cayintech.com/download/sw/P09299.psu">http://partner.cayintech.com/download/sw/P09299.psu</a>

## Procedures

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

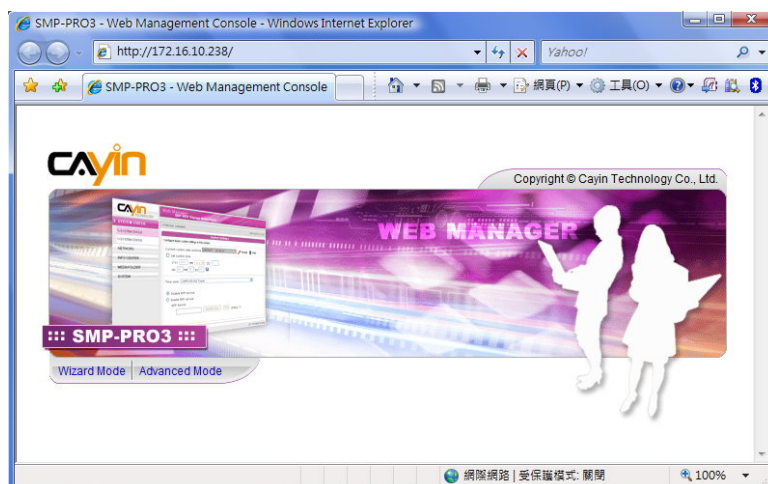


SMP supports serial ports with 9 pins D-type socket. Since socket types may differ from devices, some special cables such as “null modem cables”, “pin converter”, “gender changer” or “custom made cables” are sometimes required. Please check your device manual for detailed information.



### 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.



The screenshot shows the 'Basic Information' page with the following details:

Basic information of system status	
Hostname:	SMP-PRO3
Group:	sinfytest
Product Model:	SMP-PRO3
Firmware Version:	2.0 ,Build 07343
Current Date and Time:	2009/06/08 11:08:33
Time Zone:	(GMT) Greenwich Mean Time : Dublin, Edinburgh, Lisbon, London

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.



The screenshot shows the 'Firmware Information' page with the following details:

System firmware information	
2 patch(es) in the current system.	
- P08159:	Service Pack for SMP-PRO3
- P09268:	Add RS-232 command support

**Step 4:** Configure RS232 settings

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



The screenshot shows the 'RS-232 Control' page with the following details:

RS-232 Control	
Configure RS-232 (COM Port) parameters and commands	
<input type="button" value="RS-232 configuration"/>	
<input type="button" value="Configure RS-232 (COM Port) commands"/>	

## **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.

**RS-232 configuration**

Configure RS-232 parameters. Please confirm the parameters which you configure here are consistent with the connected device.

Baud Rate: 9600 ▼

Data-Bit: 8 ▼

Parity: None ▼

Flow Control: Off ▼

Stop Bit: 1 ▼

**SAVE** **CLOSE**

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.

Name	Command	String
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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”.

Configure RS-232 commands. Use "Send" command to send string to connected device, use "Receive" command to receive strings.			
Add RS-232 Command			
Name	Command	String	
Turn on Display	Turn on Display [Send]	8C000002018F(HEX)	<a href="#">Edit</a> <a href="#">Delete</a>
Turn off Display	Turn off Display [Send]	8C000002008E(HEX)	<a href="#">Edit</a> <a href="#">Delete</a>
Brightness 50	User-define Command 1 [Send]	8C10010232D1(HEX)	<a href="#">Edit</a> <a href="#">Delete</a> <a href="#">Send</a>
Trigger Playlist 1 index1	Trigger Web Playlist 1 (Index 0) [Receive]	208C1010(HEX)	<a href="#">Edit</a> <a href="#">Delete</a>
Trigger Playlist 1 Central Schedule	Trigger Web Playlist 1 (Central Scheduling) [Receive]	208C1011(HEX)	<a href="#">Edit</a> <a href="#">Delete</a>

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.

Name	Command	String	Actions
Turn on Display	Turn on Display [Send]	8C000002018F(HEX)	Edit Delete
Turn off Display	Turn off Display [Send]	8C000002008E(HEX)	Edit Delete
Brightness 50	User-define Command 1 [Send]	8C10010232D1(HEX)	Edit Delete Send
Trigger Playlist 1 index1	Trigger Web Playlist 1 (Index 0) [Receive]	208C1010(HEX)	Edit Delete
Trigger Playlist 1 Central Schedule	Trigger Web Playlist 1 (Central Scheduling) [Receive]	208C1011(HEX)	Edit Delete



## ➤ 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.

**Add/Edit Command**

Select a command and enter string by ASCII code or hexadecimal number.

Name:

Choose a Command:

Playlist Command

- Trigger Web Playlist 1 (Default) [Receive]
- Trigger Web Playlist 1 (Central Scheduling) [Receive]
- Trigger Web Playlist 1 (Index 0) [Receive]
- Trigger Web Playlist 1 (Index 1) [Receive]
- Trigger Web Playlist 1 (Index 2) [Receive]
- Trigger Web Playlist 1 (Index 3) [Receive]
- Trigger Web Playlist 1 (Index 4) [Receive]
- Trigger Web Playlist 1 (Index 5) [Receive]
- Trigger Web Playlist 1 (Index 6) [Receive]
- Trigger Web Playlist 1 (Index 7) [Receive]

Command String:

☒ ASCII ☐ Hex

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.

**Configure RS-232 (COM Port) commands**

Configure RS-232 commands. Use "Send" command to send string to connected device, use "Receive" command to receive strings.

Name	Command	String	
Turn on Display	Turn on Display [Send]	8C000002018F(HEX)	<input type="button" value="Edit"/> <input type="button" value="Delete"/>
Turn off Display	Turn off Display [Send]	8C000002008E(HEX)	<input type="button" value="Edit"/> <input type="button" value="Delete"/>
Brightness 50	User-define Command 1 [Send]	8C10010232D1(HEX)	<input type="button" value="Edit"/> <input type="button" value="Delete"/> <input type="button" value="Send"/>
Trigger Playlist 1 index1	Trigger Web Playlist 1 (Index 0) [Receive]	208C1010(HEX)	<input type="button" value="Edit"/> <input type="button" value="Delete"/>
Trigger Playlist 1 Central Schedule	Trigger Web Playlist 1 (Central Scheduling) [Receive]	208C1011(HEX)	<input type="button" value="Edit"/> <input type="button" value="Delete"/>



## 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.

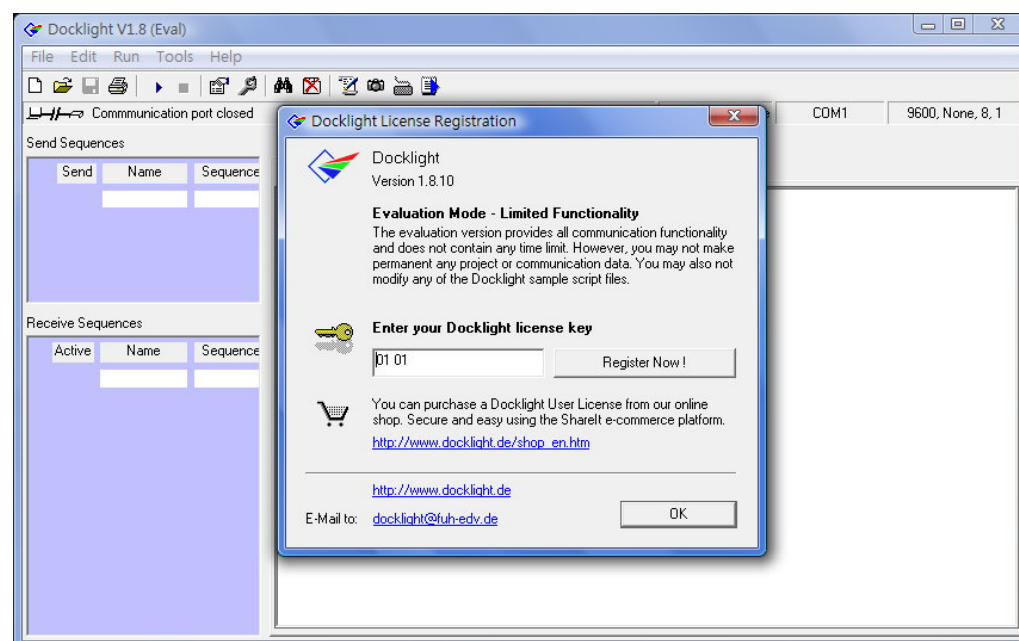
**NOTE** Docklight is a shareware that can help you send/receive RS-232 string from your PC. You can also use other similar software to send or receive RS-232 strings. Please download Docklight from website <http://www.docklight.de/>

### ➤ How to Use Docklight

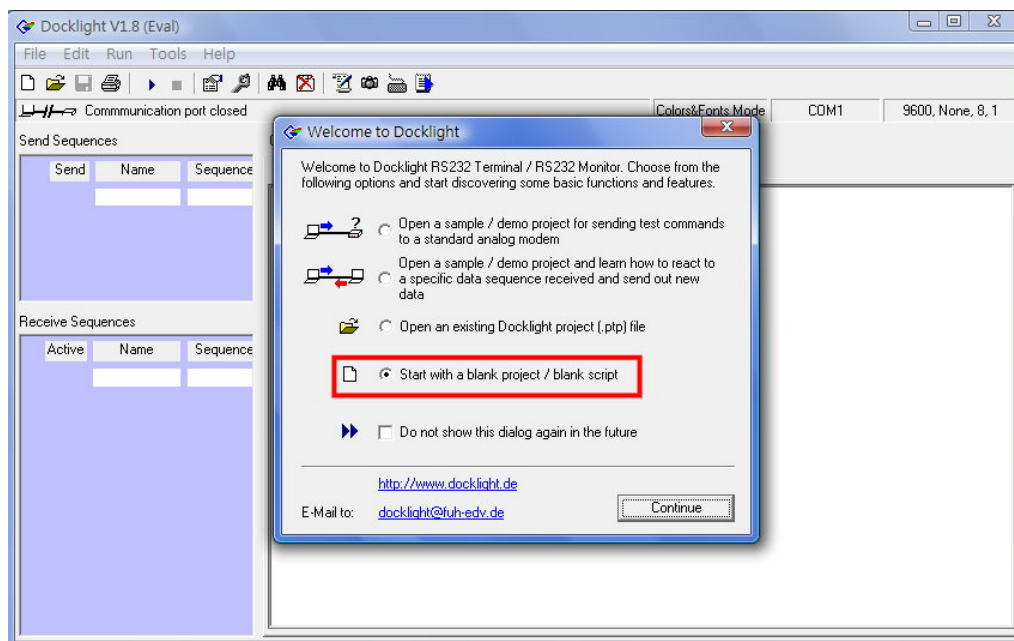
1. After installing Docklight successfully, you can launch the program from desktop.



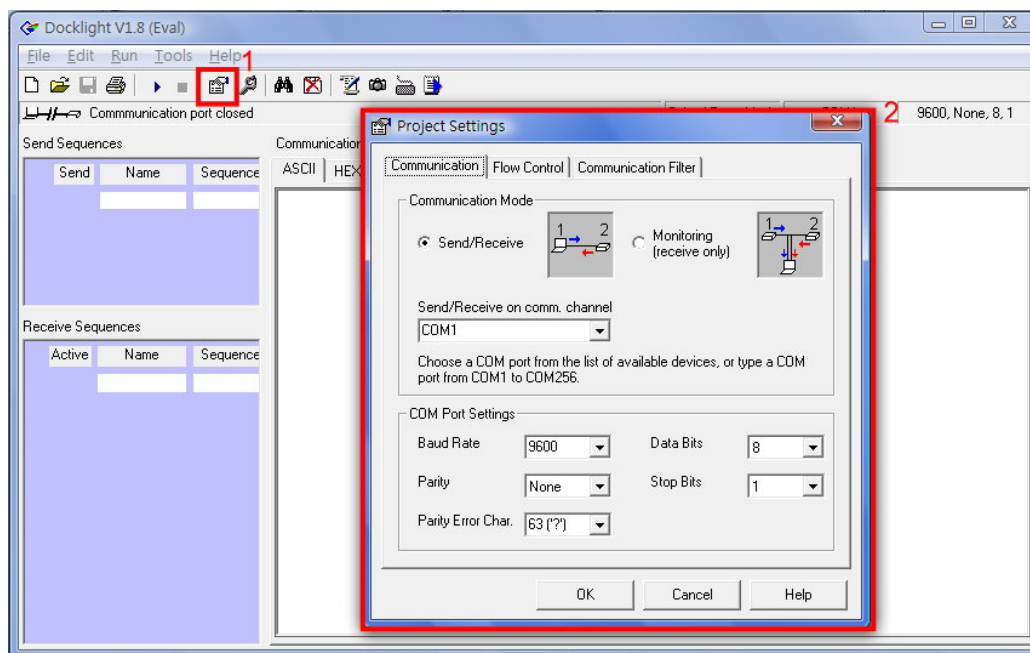
This is an evaluation version. You can press **[OK]** to continue or purchase a Docklight User License from its online shop ([http://www.docklight.de/shop\\_en.htm](http://www.docklight.de/shop_en.htm))



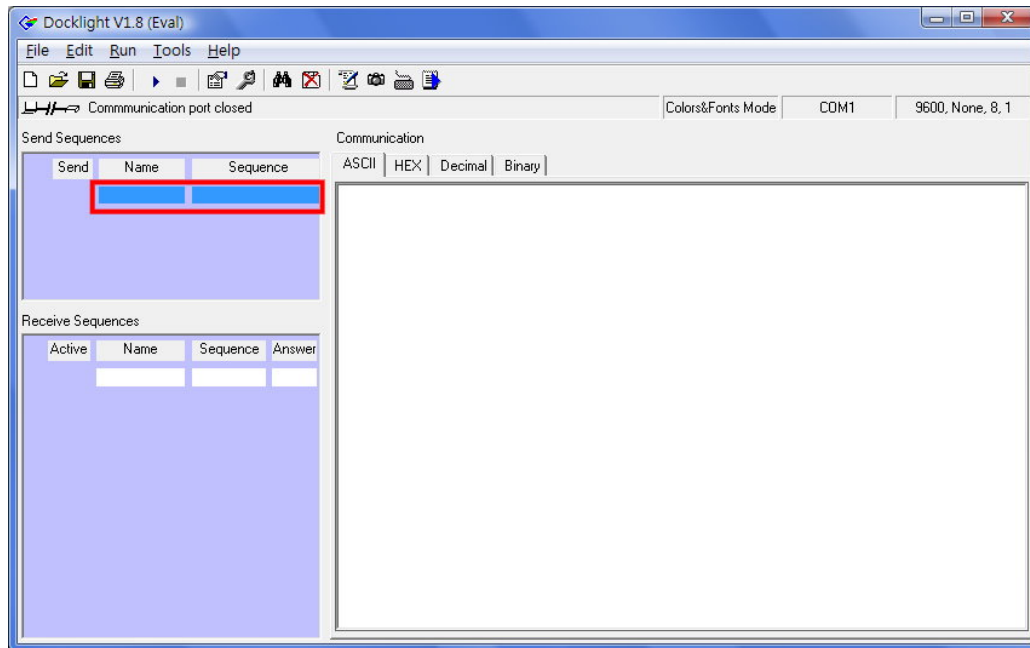
2. Press **[OK]** to continue.



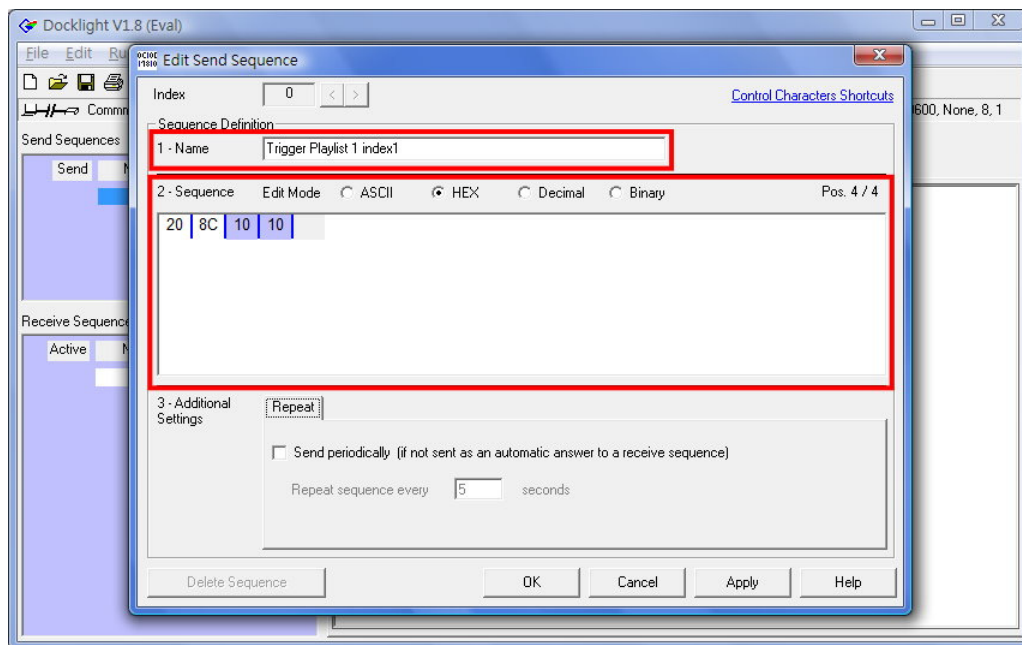
3. Select "Start with a blank project / blank script" to continue.



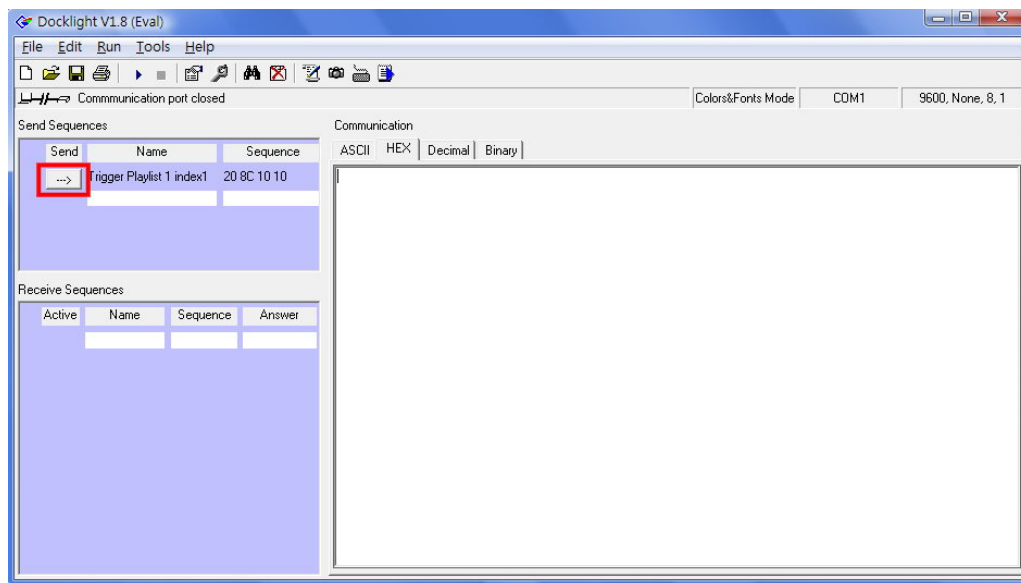
4. Press "Project settings" to setup COM Port settings (including Baud Rate, Data bits, Parity, Stop Bits, and Parity Error Char). Please make sure the settings here are consistent with the connected SMP player.



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.