RC-EDA Configuration File Formatting Guide

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This document describes the formatting requirements for the RC-EDA configuration file. The configuration file defines the parameters that allow the RC-EDA to communicate with third party projectors.

File naming: Configuration files are simple text files that must start with CONFIG_SCT_1 or CONFIG_SCT_2 and have a standard ".txt" extension. The characters following CONFIG_SCT_1 or CONFIG_SCT_2 are not relevant to functionality but help identify the intended projector to control.
Example configuration file: CONFIG_SCT_1_Pansonic_001_Serial.txt

The RC-EDA can hold two separate configuration files in memory that can be easily selected as the running file.
- Files starting with CONFIG_SCT_1 will be loaded into Bank 1.
- Files starting with CONFIG_SCT_2 will be loaded into Bank 2.
DIP Switch 1 selects which file is actively running. In the down (off) position the Bank 1 file will run. In the up (on) position the Bank 2 file will run.

The files must be located in the root folder of a Micro SD card formatted in FAT or FAT32.

File Contents: The text file contains two main sections, the "setting" section and the "converting" section. The end of this document includes complete example files. Comments may be added as long as they are placed between /* and */. Anything between /* and */ will be ignored by the RC-EDA.

(1) Setting: The "setting" section will configure communication settings of the RC-EDA.

a. CEC Path
Example: {"cecpath":"enable","transmit":[1,2],"receive":[1]}

Command	<Param>	Function
"cecpath":"<Param>"	enable	Enable CEC path
	disable	Disable CEC path
"transmit":[<Param>]	1	Repeat HDMI input 1 CEC message to HDMI output 1
	2	Repeat HDMI input 1 CEC message to HDMI output 2
	1,2	Repeat HDMI input 1 CEC message to HDMI output 1 and 2
"receive":[<Param>]	1	Repeat HDMI output 1 CEC message to HDMI input 1

b. Control
Example: {"control": "enable"}

Command	<Param>	Function
"control":"<Param>"	enable	Enable Control RS232 port
	disable	Disable Control RS232 port

c. DHCP/Static IP (of RC-EDA)
This section is needed when using the RC-EDA on a network
Example: {"dhcp":"disable","ip":"192.168.20.45","mask":"255.255.255.0","gateway":"192.168.20.1"}

Command	<Param>	Function
"dhcp":"<Param>"	enable	Enable DHCP
	disable	Disable DHCP
"ip":"<Param>"	xxx.xxx.xxx.xxx	Defines IP address of RC-EDA (only valid if DHCP is disabled)
"mask":"<Param>"	xxx.xxx.xxx.xxx	Defines subnet mask (only valid if DHCP is disabled)

"gateway":"<Param>"	xxx.xxx.xxx.xxx	Defines gateway (only valid if DHCP is disabled)

d. Output

This section defines output 1 communication parameters of the RC-EDA. Output 1 can define the Projector RS232 port, the ethernet parameters of the projector, or both. Output 2 defines the Control RS232 port.

Example:

{"output":[1],"interface":["rs232","tcpip"],"baudrate":"9600","parity":"none","ip":"192.168.20.46","port":"1024"}

Command	<Param>	Function
"output":[<Param>]	1	Commands that follow define output 1
	2	Commands that follow define output 2
"interface":[<Param>]	"rs232"	Defines parameters of RS232 port
	"tcpip"	Defines parameters of target projector IP settings (valid for output 1 only)
	"rs232","tcpip"	Defines parameters of RS232 port and projector IP settings (valid for output 1 only)
"baudrate":"<Param>"	2400, 4800, 9600, 14400, 19200, 28800, 38400, 57600, 115200	Sets baud rate of RS232 port (Projector RS232 port for output 1, Control RS232 port for output 2)
"parity":"<Param>"	none, even, odd	Sets parity of RS232 port (Projector RS232 port for output 1, Control RS232 port for output 2)
"ip":"<Param>"	xxx.xxx.xxx.xxx	Defines IP address of target projector
"port":"<Param>"	0 - 65535	Defines IP port of target projector

(2) Converting: The "converting" section will define CEC commands and how they are converted to projector commands.

a. Operation

Operations define the CEC commands and must be followed by the output and command that will be executed as a result.

Example: {"operation":"\x04","output":[1,2],"command":"\x02ADZZ;PON\x03"}

Command	<Param>	Function
"operation":"\x<Param>"	04, 82, 9d, 36	Sets what CEC byte will initiate an output command 04 = Image view on (Power on) 82 = Active source 9d = Inactive source 36 = Standby (Power off)
"output":[<Param>]	1	Command will be sent to output 1
	2	Command will be sent to output 2
	1,2	Command will be sent to output 1 and 2
"command":"<Param>"	Hex, ASCII, or a combination of both	Defines the command that will be sent. Characters will be recognized and sent as ASCII unless preceded by \x. The 2 characters immediately following \x will be recognized and sent as Hex.

DIP Switches:

DIP Switch 1: Selects which configuration file is actively running. In the down (off) position the Bank 1 file will run. In the up (on) position the Bank 2 file will run. Reboot is required to take effect.

DIP Switch 2: Enables or disables Ethernet ports. In the down (off) position all Ethernet ports are enabled. In the up (on) position all Ethernet ports are disabled.

DIP Switches 3 & 4: Reserved for future use.

Complete CONFIG_SCT Examples:

Example 1: In this example the RC-EDA will control a projector via RS232.

```
/* RC-EDA Configuration file for Panasonic projectors */
{
"setting":[
{"cecpath":"enable","transmit":[1,2],"receive":[1]},

/* The following defines the RS232 port parameters */
{"output":[1],"interface":["rs232"],"baudrate":"9600","parity":"none"},
{"output":[2],"interface":["rs232"],"baudrate":"9600","parity":"none"}],

/* Commands are defined below */
"converting":[
{"operation":"\x04","output":[1,2],"command":"\x02ADZZ;PON\x03"}, /* CEC power on command */
{"operation":"\x82","output":[1,2],"command":"\x02ADZZ;PON\x03"}, /* CEC active source command */
{"operation":"\x9d","output":[1,2],"command":"\x02ADZZ;POF\x03"}, /* CEC inactive source command */
{"operation":"\x36","output":[1,2],"command":"\x02ADZZ;POF\x03"}] /* CEC standby command */
}
```

Example 2: In this example the RC-EDA will control a projector via ethernet at IP 192.168.20.46 and port 1024.

```
/* RC-EDA Configuration file for Panasonic projectors */
{
"setting":[
{"cecpath":"enable","transmit":[1,2],"receive":[1]},

/* The following sets the IP parameters of the RC-EDA */
{"dhcp":"disable","ip":"192.168.20.45","mask":"255.255.255.0","gateway":"192.168.20.1"},

/* The following defines the IP parameters of the target projector */
{"output":[1],"interface":["tcpip"],"ip":"192.168.20.46","port":"1024"},
{"output":[2],"interface":["rs232"],"baudrate":"9600","parity":"none"}],

/* Commands are defined below */
"converting":[
{"operation":"\x04","output":[1,2],"command":"\x30\x30PON\x0d"}, /* CEC power on command */
{"operation":"\x82","output":[1,2],"command":"\x30\x30PON\x0d"}, /* CEC active source command */
{"operation":"\x9d","output":[1,2],"command":"\x30\x30POF\x0d"}, /* CEC inactive source command */
{"operation":"\x36","output":[1,2],"command":"\x30\x30POF\x0d"}] /* CEC standby command */
}
```