

CSCP Configuration

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The configuration may require the following files to be manually edited.

- /etc/rc.local
- /home/MasterControl/MasterControl/StudioSetup

If the customer requires the Calrec desk to be connected to their corporate network for the third party controller to communicate with it then the MasterControl cards DHCP server should be disabled.

To disable the DHCP server MasterControl card's rc.local file should be edited to include the "dualserveroff" command line option (shown in bold below). It is important to do this on both the primary and secondary MasterControl cards.

rc.local file CalSFd -dualserveroff

```
#!/bin/sh
#
# This script will be executed *after* all the other init scripts.
# You can put your own initialization stuff in here if you don't
# want to do the full Sys V style init stuff.

touch /var/lock/subsys/local
#ifconfig eth0:1 193.21.6.1 netmask 255.255.255.0
logrotate -f -s /home/MasterControl/log/logrotate.status /home/MasterControl/guardian/logrotate.conf
cd /home/MasterControl/guardian
./CalSFd -log -debugmcs -daemon -dualserveroff -mcs loadlast autosave type dev_apollo pack 0
#./CalSFd -log -debugmcs -daemon -mcs autosave type dev_apollo
pack 0
cd /home/MasterControl/Sioux
./siouxStart.sh
```

StudioSetup

Entries in the studio setup file (/home/MasterControl/MasterControl/StudioSetup) define which control device protocols can be run and optionally which aliased addresses to associate with them. It is important to note that all Calrec desks have the same MAC addresses; so if more than one Calrec desk is connected to the corporate network level three switches must be used resolving the desk's location by IP rather than level two MAC address.

cscp_port

The lines starting with "cscp_port" in the studio setup file (/home/MasterControl/MasterControl/StudioSetup) define which protocols the customer can run and which Ethernet port the controller should connect to. The line has four comma separated parameters.

The first parameter "name" is just a string to identify the protocol it could be Fred or Bert or perhaps something more meaningful like Mosart or Ross for example. The name can contain letters and numbers (no spaces or punctuation marks).

CSCP Configuration

The second “protocol” is one of the numbers 2, 3 or 4. Number 2 is the CSCP01 protocol compatible with Ross, number 3 is the CSCP20 compatible with Sony ELC and 4 is CSCP21 protocol compatible with Mosart.

The enable is the initial enable\disable state the protocol starts up in, this is a one off setting used only when the desk starts up for the first time after that the protocol state is controlled by the setting on the external controls page of the console PC.

The name and port number must be unique, there should not be more than one cscp_port with the same name, there should not be more than one cscp_port with the same Ethernet port number. The name can contain letters and numbers (no spaces or punctuation marks). The following TCP ports are reserved and should not be used for the Calrec Serial Protocol 23, 80, 49152-49166, 55100, 55000, 55555 60001, 60002, 61000. Ports in the range 49200 – 49204 have been used during testing.

On the ConsolPC external control screen there will be one button for each cscp_port line in the studio setup, the label on the button is derived from the protocol type (CSCP01, CSCP20, CSCP21).

For those with knowledge of the Bluefin 1 and classic desks these lines act like the tick boxes provided in the configuration utility to control whether the protocol feature is available or not.

ipalias

An alias address can be specified for the Calrec desk so it can be connected to the customer’s corporate network. If the customer requires this facility then they need to provide a suitable IP address and mask. The information has to be manually edited into the StudioSetup file (/home/MasterControl/MasterControl/StudioSetup). Separate IP addresses will be required for the primary and secondary MasterControl cards.

It is only necessary to define this data if the Calrec desk needs to be visible at an aliased IP address. If the data is defined it will be used.

The lines starting with ipalias in the studio setup file (/home/MasterControl/MasterControl/StudioSetup) define the IP address and mask the customer wants to use, it has five comma separated parameters.

The first parameter “AliasName” is just a string to give the alias an identifier it can be any string, Sally, Sarah or perhaps something more meaningful like Alias1 or Alias2. The AliasNames have to be unique there should not be more than one line with the same AliasName. The name can contain letters and numbers (no spaces or punctuation marks).

The second parameter is a keyword primary or secondary. The keyword primary means that the following IP and mask will be used only by the primary MasterControl, secondary means the IP and mask will only be used by the secondary MasterControl.

The third parameter is the customer’s IP address in a human readable format e.g. 10.212.3.37.

The fourth parameter is a keyword it must be “mask” it confirms to the software that the IP mask follows (and arguable gives a clue as to what the data is in the file).

The fifth is the customer’s required IP mask entered in a human readable form e.g. 255.255.255.0.

If the aliasing is used there must be separate entries for the primary and secondary MasterController.

CSCP Configuration

The format of the human readable IP address data is not checked or validated in any way what ever text is entered will be used to attempt to set up the alias address so it is important for it to be entered carefully.

staticroute

Depending on the customers network configuration a **gateway** may need to be used for the Calrec CSCP to access the remote controller to return information about the current setting. To do this a static route needs to be created in the master controller.

The static route entry in the studio setup file (/home/MasterControl/MasterControl/StudioSetup) has four parameters separated by commas.

The first parameter is a keyword 'target' identifying that the remote controller's TCP/IP address follows.
 The second parameter is a human readable form of the remote controller's TCP/IP address.
 The third parameter is a keyword 'gateway' identifying that the gateway address follows.
 The fourth is a human readable form of the gateway's TCP/IP address.

If a gateway has to be specified an entry for each remote controller needs to be added for example some controller's provide two servers for redundancy purposes and entry needs to be made for the primary and redundant remote controller.

cscp_protocolalias

The lines starting with cscp_protocol in the studio setup file (/home/MasterControl/MasterControl/StudioSetup) allow a specific protocol to be associated with a particular alias address. If the alias data has not been defined this data does not have to be defined. The line has two comma separated parameters.

The first parameter "name" is one of the unique names defined as the first parameter of the cscp_port data.

The second "AliasName" is one of the unique AliasNames defined as the first parameter of the ipalias data.

The cscp_protocolalias data is the only place that the cscp_port name and ipalias name are used; just to provide the link between which customer IP address is used for which protocol.

If the aliasing is used there must be separate entries for the primary and secondary MasterController.

```
# Calrec Serial Control Protocol
# Format:
#
# cscp_port = <name>,<port>,<Protocol>,<Enable>
#
# name - a string giving a human readable name for this control protocol e.g 'mosart'
#
# port - the ip port number to be used to connect to this protocol
#
# Protocol 0 = NO PROTOCOL
# Protocol 1 = For Calrec internal use only
# Protocol 2 = Version 1 (Ross Compatible)
```

CSCP Configuration

```
# Protocol 3 = Version 20 (Version 1 + Auxiliary send routing extensions)
# Protocol 4 = Version 21 (Version 20 + Channel/Group routing to mains extensions)
#
# Enable 0 = The protocol is initially disabled until the user enables it from the GUI
# Enable 1 = The protocol is initially enabled until the user disables it from the GUI
# This Enable setting is overridden when users last setting is loaded from options
#
# usage example:
#
# cscp_port = name1,49200,4,1
#
# Calrec Serial Control Protocol Aliasing
#
# An ip alias is required to communicate with external controllers over a corporate network
# The following command is used to associate a protocol, as defined with cscp_port, with an
# ip alias defined with the ipalias command. There will be as many cscp_protocolalias as aliases
# be used with the protocol, typically two, one for each control processor.
#
# cscp_protocolalias = <name>,<AliasName>
#
# name - a string giving the name of a protocol, this must match a name from a cscp_port configuration
# AliasName - a string giving the id of a alias defined by an aliasip configuration
#
#     usage example:
#
# cscp_protocolalias = name1,alias1
# cscp_protocolalias = name1,alias2
#
# Internet Protocol Alias
#
# To define an ip alias for a control processor network adapter the ipalias configuration is used
# Typically this will be used in association with the Calrec Serial Control Protocol.
# Typically there will be at least two aliases defined, one for the primary processor, and a second
# for the secondary processor. As many aliases as required may be defined.
#
# ipalias = <AliasName>,<Processor>,<alias IP address>,<mask>,<netmask>
#
# AliasName - The name to be used for this alias
#
# Alias IP address - The IP address of the new alias (i.e. a static ip address)
#
# Processor 'primary' = An alias is to be used for the primary control processor
# Processor 'secondary' = An alias is to be used for the secondary control processor
#
# mask - the word 'mask'
#
# netmask - the ip netmask to be used for the alias
#
#     usage example:
#
# ipalias = alias1,primary,10.20.1.25,mask,255.255.255.0
```

CSCP Configuration

```
# ipalias = alias2,secondary,10.20.1.35,mask,255.255.255.0
#
# Static Routes (for allowing communication through a gateway)
#
# To define a static route the 'staticroute' keyword is used. A typical usage scenario
# would be to allow a CSCP remote control device to communicate through a gateway,
# where the control processor and the remote control device (target) are located on
# different networks bridged via a gateway. The target ip address as well as the gateway
# needed to reach the target are defined. Both parameters must be defined
# and be a valid ipaddress. The gateway must be reachable (try ping <Gateway> to make sure)
#
# target - the word 'target'
# Target - The ip address of the target
# gateway - the word 'gateway'
# Gateway - the ip address of a gateway used to reach the defined target
#
# staticroute = target,<Target>,gateway,<gateway>
#
# usage example:
#
# staticroute = target,100.34.10.1,gateway,100.34.35.254
```