EEG Application Note

Clone Port and NetClone

Applies to Products: HD480, HD490, HD 1430/1490

Last Revised: December 2013

Clone port is an optional application for your EEG caption encoder that re-transmits all control commands and data to one or more additional caption encoders. The additional encoders can be connected either through RS-232, or through the NetClone TCP/IP interface.

This document will use "master" or "server" to describe the EEG encoder that is initially receiving caption data from a live captioner or software service, and then re-transmitting it to one or more additional encoders. These additional encoders will be called "clients" or "slaves", and may be newer EEG encoders like HD480, HD490 or HD 1430/1490, legacy EEG encoders like the EN470 or EN530, or third-party products or computer software that understand Smart Encoder format closed captioning data commands.

The master encoder must have the Clone port optional software installed, and then set up through its web configuration portal. When any "Clone Server" option is enabled, the encoder will copy commands and data that are received through the dial up modem (MA), iCap, telnet, or RS-232 (P1, plus P2 if it is being used for input and not Clone output). Use the Clone web interface to select whether to copy these commands to the RS-232 port (Start RS-232), or whether to start a NetClone server (Start TCP/IP). If you select "Start TCP/IP with Log", all copied commands will also be logged to the "Logs" page on the encoder web portal.

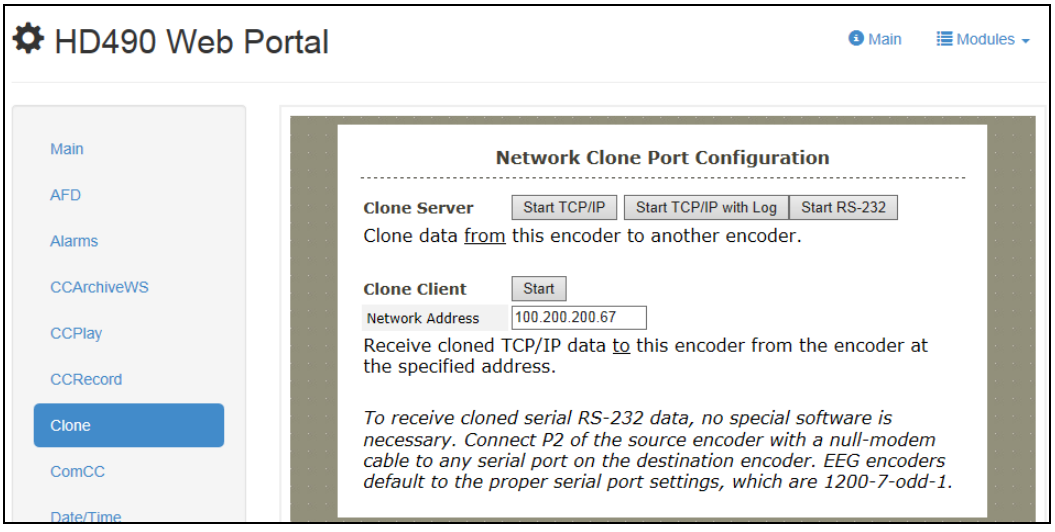

Figure 1 - Clone Configuration on an HD490

If you are using the TCP/IP server option (“NetClone”), each slave encoder must also have a licensed Clone module. On the web portal for the client encoder, enter the IP address of the master encoder in the “Clone Client” section, and press “Start”. Statistics on the Clone page should acknowledge that a connection has been made on both the Client and Server encoders.

You may connect any number of TCP/IP client encoders to one Master encoder.

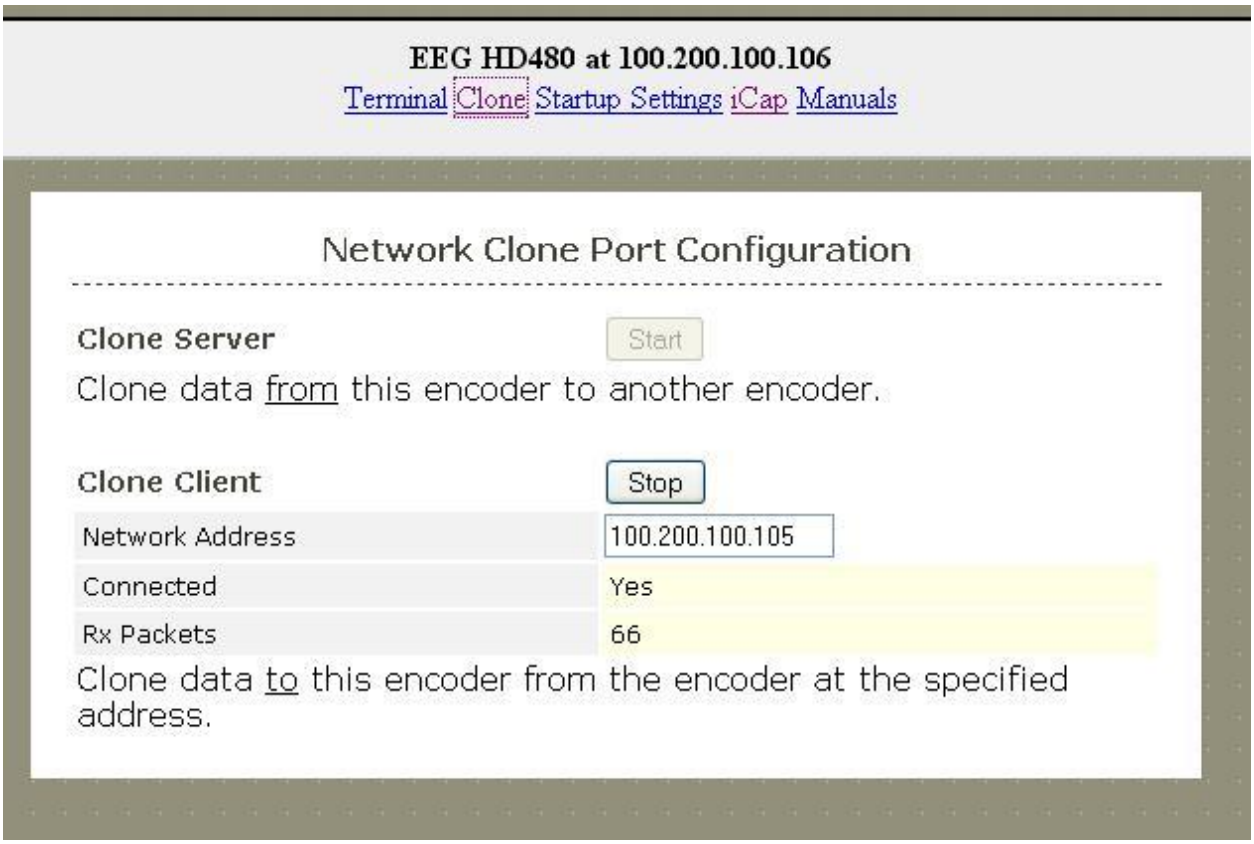

Figure 2 - Client Configuration and Activity Stats on an HD480

Alternatively, if you select the “Start RS-232” option on the master encoder, you can connect a single slave encoder by using a null-modem RS-232 cable to connect P2 of the master/source encoder to any serial port on the destination encoder. The destination encoder does not require the optional Clone software, and may be a legacy EEG encoder without an Ethernet connection such as an EN530, or any third-party device with an RS-232 port.

For RS-232 cloning (as well as other applications), the factory default settings for the serial connection on EEG encoders are 1200 baud, 7 data bits, odd parity, and 1 stop bit. If you have changed the baud rates previously on the sending or receiving encoder, or if you are connecting to a third-party device, you may need to change the settings on the two devices so they match

exactly. On EEG encoders, use the “Startup Settings” tab on the web configuration page to modify baud rate settings so that they will be applied every time on startup.