AMX modules for

tvONE C2-2855 Universal Scaler

Integration Guide

1 – Summary

This document will assist AMX programmers and installers with the integration of this module into their AMX program.

The module was designed to control a tvONE C2-2855 Universal Scaler.

2 – Resources and Assumptions

2.1 – Supported Systems

The module has been designed for AMX control system range with Ethernet capability. A Demo project is provided. This project is not intended for end users, but is provided so that all features of the module can be demonstrated and exercised.

2.2 – Software and Firmware

This module was developed using the following firmware and software versions. Ensure you are using the same version or newer.

AMX NetLinx Studio : 3.2.0.418

tvONE C2-2855 version : 485 or greater

2.3 – Assumptions

It is assumed that you already have a good understanding of AMX Programming and Integration. Knowledge of TCP/IP networking would also be beneficial.

It is assumed that the tvONE device is installed and functioning correctly. The tvONE device must be connected to the same LAN as the AMX processor for TCP/IP control.

3 – AMX Modules

3.1 – Module Format

The tvONE project module has been provided in a zip package called "tvONE_AMX_version.zip". Copy the tko file to your project folder and add it to your project. A demo file has been provided for demonstration / evaluation of the module and is not intended for direct integration into your project.

3.2 – Features

The tvONE Video Scaler Switcher features supported by the AMX module are described below. Please consult your tvONE device guide to check if the function is supported by your device. Also check your guide for the maximum preset value by your tvONE video switcher.

Function	Notes
SELECT SOURCE	Used to change the foreground and background input source e.g. HDMI, DVI, PC, YC, Composite Video, S Video.
LOAD PRESET X	Load a preset where X is the preset number from 1 to n, the number defined by your device. Max n is 12 for C2-2855.
RESET	Resets the tvONE device.

3.3 – Using the module in your program

Copy the "tvONE_AMX_version.tko" file from the zip file to your AMX project folder and add it to your project. Next, add parameter definitions and a define_module line to your master source file

```
define_device
dvTP              = 10001:1:1    // Touch panel Device ID
vdvTVONE_C2       = 33001:1:1    // Virtual Device ID
dvTVONE_C2        = 0:4:0        // Device number and Model Number


// TV ONE module TCP/IP comms
char TVONE_SWITCH_IP[15] = '192.168.1.200';
long TVONE_SWITCH_IP_PORT = 10001;


define_module 'tvONE_C2_Switcher' tvONE_C2_Switcher( vdvTVONE_C2,
dvTVONE_C2, TVONE_SWITCH_IP, TVONE_SWITCH_IP_PORT );
```

The module parameters are as follows:

Parameters	Details
vdvTVONE_C2	The virtual device used for communication beween the program and the switcher module. Define a device in the virtual device range. The default value is 33001:1:1.
dvTVONE_C2	The physical device for the switcher. Define a device in the IP device range. The default value is 0:4:0.

TVONE_SWITCH_IP	The IP address of the tvONE Video Scaler Switcher. The default address is 192.168.1.200.
TVONE_SWITCH_IP_PORT	The TCP/IP port of the tvONE Video Scaler Switcher. The default port is 10001.

3.4 – Testing the modules using the supplied test harness

The supplied demo test harness may be used to test the module. The test harness includes a UI module which controls the tvONE device via commands sent through the virtual device. The commands are sent to the module using **send_command**. For instance :

send_command vdvTVONE_C2, 'SOURCE=SOURCE_HDMI'";

would select input source HDMI. All source names are defined in the tvONE_C2_Constants include file supplied in the project zip file.

```
// Source constant list

SOURCE_HDMI

SOURCE_DVI_U

SOURCE_PC_HD

SOURCE_CV

SOURCE_YC

SOURCE_SDI

SOURCE_SIS1

SOURCE_SIS2

SOURCE_SIS3

SOURCE_SIS4

SOURCE_SIS5
```
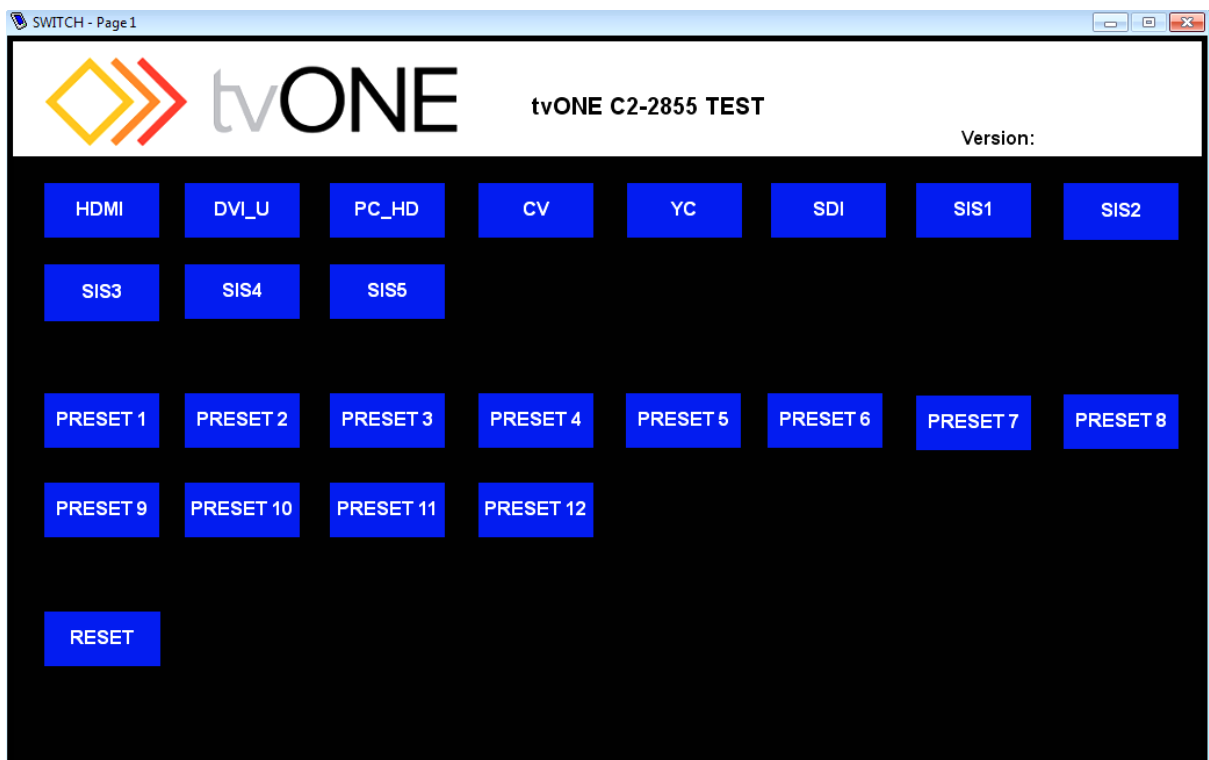
send_command vdvTVONE_C2, 'LOADPRESET=4';

would load preset 4.

All commands supported by the module are listed below.

Command	Details
SOURCE=<string>	Selects the input source displayed by the switcher. The string should be as defined in the source constant list in the project module.
LOADPRESET=<number>	Loads a preset defined the number selected. The preset number must be in range for the device e.g. between 1 - 12.
RESET	Resets the TVONE device. The C2-2855 takes approx 15 seconds to reboot. The test panel will display "Connected" once communications have been restored.

The test harness supplied allows the user to change sources, select presets and also send the reset command.

4 – Troubleshooting and tips

4.1 – Communication failure

Please check the IP address is correct for your C2-2855 device.

If the commands sent to the device do not seem to be working, check that you can ping the device with a pc.

The C2-2855 does not support multi-users and can only support one connection at a time. If you cannot connect to the device, check no other systems are connected to the device.

After resetting the device or a communication failure, it may take 15 – 30 seconds for the connection to be re-established.

If the source requested is not selected, check that the firmware downloaded on your C2-2855 device can support the source.

If the preset requested is not selected, check that the preset exists on the device by manually selecting the preset.