Network Port

The RJ45 network port fitted to all TMC-1's is used by the TMC-1-Penta and TMC-1-DMon to communicate with the NTP Penta, DAD AX32/DX32, Avid MTRX or the Trinnov D-Mon. To setup depress [Select] and [Page] simultaneously to access the Select Page and then depress the E-Net key. to access the Discovery Page. Depressing the [->] key will access the TCP/IP page where you can enable/disable [DHCP].

The TMC-1-Penta does not need DHCP and will always switch to the same subnet as the selected device. The TMC-1-DMon and OSC require all units to be on the same subnet, where a DHCP server is available DHCP can be used to set all devices to the same subnet.

Fixed IP

1)You can set any ip address using the TMC-1v2 app
2) You can see the TMC-1 IP address on the TCP/IP page

DHCP

1) It will always request its current address, the IP address will change only if the current address is not available
2) The current IP address is displayed on the TCP/IP page
3) When disabled the address will remain the same
4) the DHCP process is enabled whenever DHCP is enabled, if a dhcp server is found the IP Address will be set and DHCP will be turned off.

The easiest way is to check that DHCP working is to switch to Fixed IP mode, change the address to a DIFFERENT Sub net (The first two numbers), then enable DHCP.

OSC (Open Sound Control)

OSC has been added to the TMC-1 to allow the user to design their own control surface on Tablets or mobile phones. OSC programs for example TouchOSC can be used to control the TMC-1. TouchOSC templates are available on the TMC-1 web sites to use or as a guide.

TouchOSC can be communicate directly with the TMC-1, the TMC-1 Software assumes that pages will be named as 0..9 longer names will not work correctly, once the slave s/w is written these will be forwarded to the slave. The slave software will allow a slave ip address to be specified, any commands not recognised by the TMC-1 will be forwarded to the slave ip address on port 8000.Alternativly you can use OSCulator, a OSC command router.

The functions are grouped by the prefix and the individually identified by number

User Keys

User Keys are Momentary keys made from 3 components: the switch, the Led and the label. Normally you can use your own key label names, however it is recommended (but not essential) that they be named as OSC variables so that they may updated by the TMC-1. The user key numbers can be found in the TMC-1 Reference user key table. Not all user functions have been implemented others can be added if requested.

Example: [Alt input] The OSC number for the[Alt Input] is 17, therefore the three components are: key ='tmca17', label = 'tmcu17' and LED ='tmcn17'.

OSC Page Names

The TouchOSC page names should be the numbers 1..9 only, the TMC-1 will update the current page only, keys labels, LEDs, and faders may be repeated on multiple pages.

TouchOSC Push buttons should be used for the User and Speaker Solo/Mute keys.

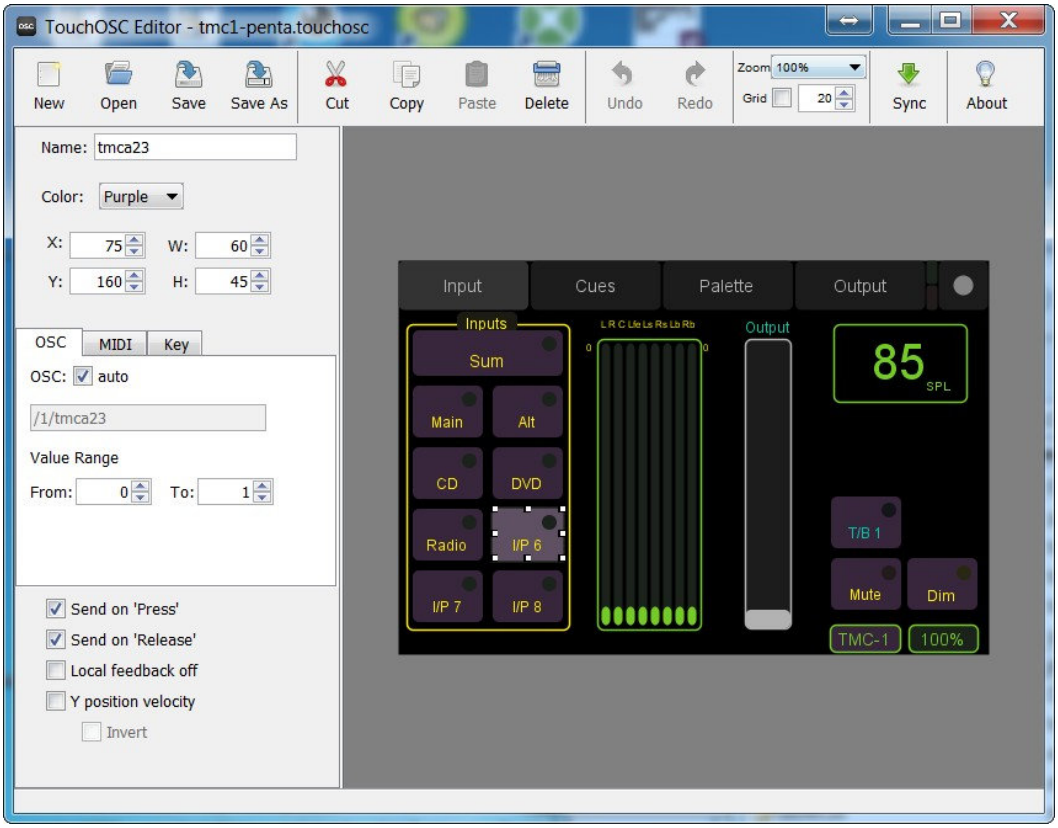
TouchOSC rotary or fader controls can be used to control level, the value range is the default 0 to 1

TouchOSC Toggle buttons are used for defining the cue routing matrix as per example.

TouchOSC page names, the TMC-1 implementation requires that the Page names should be single digit numbers from 1 to 8, in the example the page names are 1, 2, 3, 4. The TMC-1 will display an error "OSC Page No." if a unrecognised page number is received.

The meters may be turned on and off, in the example the enable key is the heading line of the meters. The meters are enabled individually for every page. The meter enable

information is held in non volatile ram. Some tablets cannot handle the meter signal and become unreliable.



You can experiment using the TouchOSC Editor, a free download from https://hexler.net/software/touchosc#downloads

You can download a zip file with examples http://www.colinbroad.com/cbsoft/tmc1/OSC/tmc1_OSC.zip

To run the software you will need the TouchOSC app which is available from the Apple or Google App Store for $5.

Included in the zip file are a 3d printer file (tablet.stl) for brackets that can be used to cradle a phone/tablet on the rear of a TMC-1, TouchOSC sample apps the TMC-1-penta and TMC-1-AMon, and images of the different sample screens.

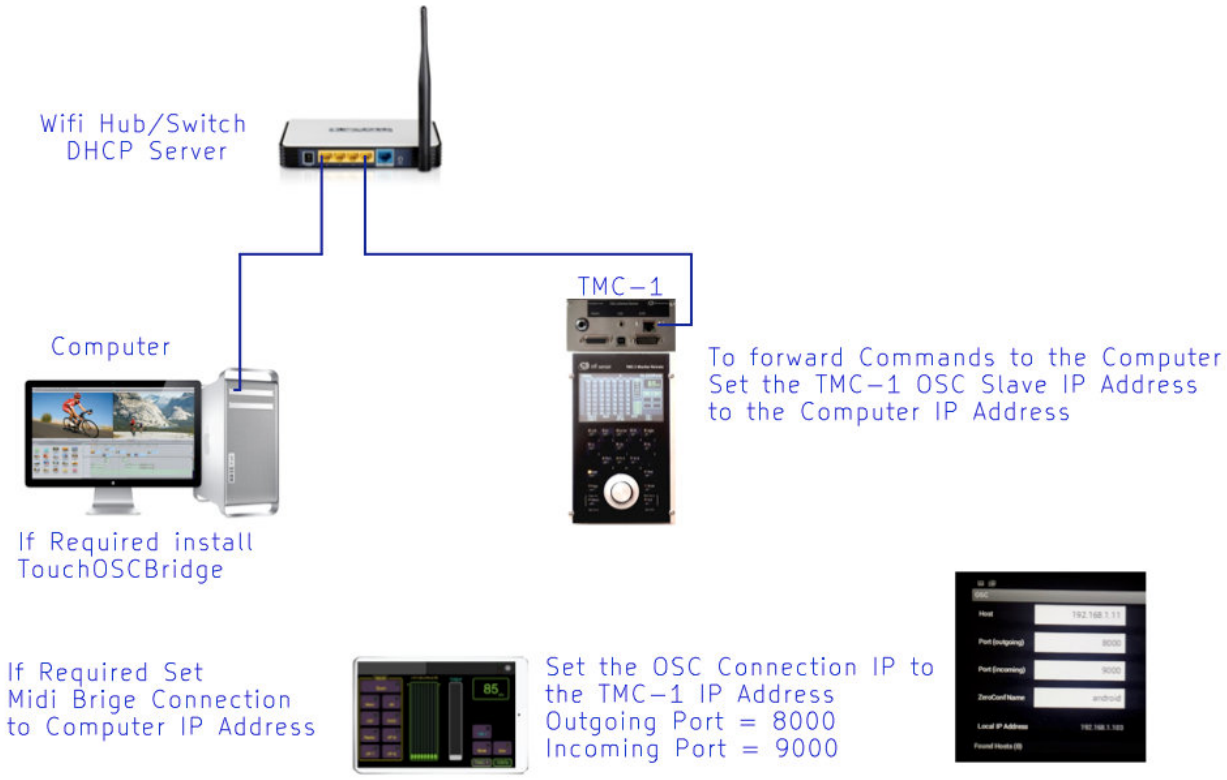
Most of the User keys The user key numbers are defined with the user key functions earlier in the TMC-1 Reference manual.

The current control codes and control types are listed below. Push Buttons are made up from three controls: Push Button, Label V, and LED. Single controls are used throughout except for the meters which are a 8 channel multi fader.

OSC Slave O/P

The Slave OSC O/P is provided to allow OSC control of a DAW or other devices from the same tablet. The OSC slave is assumed to be on the same subnet, the final IP number is defined on the OSC Slave IP Page on the TMC-1 (Select+Page then ENet). The Outgoing Port is fixed (8000) and the Incoming Port is fixed (9000). Commands from the Tablet not recognised as TMC commands will be forwarded to the OSC Slave. Tallies from the OSC Slave will be forwarded to the Tablet.

OSC WiFi Connections



The tablet OSC commands are sent to the TMC-1 via the WiFi router/Switch. Any Midi/ Keyboard commands from the tablet are sent to the Computer via the Wifi Router/Switch.

Any unrecognised OSC Commands are forwarded by the TMC-1 using the TMC-1 OSC Slave output to the DAW via the WiFi router/switch.

Tallies flow in the opposite direction.

All devices must be on the same subnet (the first three numbers of the IP Address must be the same). Where multiple WiFi signals are available care should be taken that the tablet is connected to the correct network. In this case it can be advantageous to use a USB-Ethernet adaptor on the tablet to make a wired connection to the network.

OSC Switch, Label, and LED Codes					
Function	**OSC control prefix**	**OSC Control Type**	**OSC number**	**OSC Label Prefix**	**OSC LED Prefix**
User keys (Not all User keys are implemented)	/tmca	Push Button	See User key List	/tmcu	/tmcn
SPL Display			1	/tmco	
SPL Type			2	/tmco	
Meter Label			3	/tmco	
Error Message			4	/tmco	
Meters	/tmcm	Multi-Fader			
Mute key	/tmcb	Push Button	1		/tmcp
Dim key	/tmcb	Push Button	2		/tmcp
L/S Mute	/tmcb	Push Button	3		/tmcp
L/S Solo	/tmcb	Push Button	4		/tmcp
Penta Palette Assign	/tmcb	Push Button	5		
Meter Enab/Disab	/tmcb	Push Button	6		/tmcp
Update All (Refresh)	/tmcb	Push Button	7		
Increment Mon level	/tmcb	Push Button	8		
Decrement Mon level	/tmcb	Push Button	9		
L/S keys	/tmcd	Push Button	1...16	/tmcq	/tmct
Monitor level	/tmcc	Fader/Rotary	1		
Cue 1 level	/tmcc	Fader/Rotary	2		
Cue 2 Level	/tmcc	Fader/Rotary	3		
Cue 3 Level	/tmcc	Fader/Rotary	4		
Cue 4 level	/tmcc	Fader/Rotary	5		
Cue 5 level (XMon Only)	/tmcc	Fader/Rotary	6		
Phones Level (Penta Only)	/tmcc	Fader/Rotary	6		
Internal T/B level	/tmcc	Fader/Rotary	7		
External T/B level	/tmcc	Fader/Rotary	8		
Listen 1 level	/tmcc	Fader/Rotary	9		
Listen 2 Level	/tmcc	Fader/Rotary	10		
AFL Level	/tmcc	Fader/Rotary	11		
Slate Level	/tmcc	Fader/Rotary	12		
SLS Cue routing	/tmce	Toggle Button	1..6		
Cue Out 1 routing	/tmce	Toggle Button	7..12		
Cue Out 2 routing	/tmce	Toggle Button	13..18		
H/PCue Routing	/tmce	Toggle Button	19..24		

H/P Cue Routing (XMon only)	/tmce	Toggle Button	25..30		

TMC-1-Penta Only					
	OSC control prefix	**OSC Control Type**	**OSC number**	**OSC Label Prefix**	**OSC LED Prefix**
Palette PFL	/tmcf	Push Button	1..32	/tmcr	/tmcs
Penta Analog Input					
Mic/Line 1-8	/tmcf	Push Button	33-40	/tmcr	/tmcs
Mute 1-8	/tmcf	Push Button	41-48		/tmcs
48v 1-8	/tmcf	Push Button	49-56		/tmcs
Polarity 1-8	/tmcf	Push Button	57-64		/tmcs
PFL 1-8	/tmcf	Push Button	65-72		/tmcs
Input Name			41-48	/tmcr	
Gain 1-8	/tmcc	Fader/Rotary	17-24		
Meter 1-8	/tmcc	Fader	25-32		

User Key OSC Numbers									
No	**User Key**	**No**	**User Key**	**No**	**User Key**	**No**	**User Key**	**No.**	**User Key**
1	Sum	**16**	Main I/P	**31**	T/B 1x	**46**	LCRS		
2	Cal P	**17**	Alt I/P	**32**	T/B 2x	**47**	Atmos		
3	Pset 1	**18**	I/P 3	**33**	T/B Allx	**48**	St.Down		
4	Pset 2	**19**	I/P 4	**34**	Listen 1	**49**	5,1 Down		
5	Pset 3	**20**	I/P 5	**35**	Listen 2	**50**	Bass X		
6	Pset 4	**21**	I/P 6	**36**	AR Listen	**51**	LFE +10		
7	A/B	**22**	I/P 7	**37**	Cal-A	**52**	Ph Follow		
8	Auto A/B	**23**	I/P 8	**38**	Cal-B	**53**	SLS PFL		
9	AR T/B	**24**	SLS	**39**	AFL	**54**	H/P PFL		
10	Auto SLS	**25**	Cue 1	**40**	Sur-3dB	**55**	Imax		
11	GPO3	**26**	Cue 2	**41**	Mono	**56**	Auro		
12	Defeat	**27**	H/P	**42**	Stereo	**57**	DTSx		
13	Main	**28**	T/B 1	**43**	2.1	**58**			
14	Alt	**29**	T/B 2	**44**	5.1	**59**			
15	Mini	**30**	T/B All	**45**	7.1	**60**			