

X4 and Touchpanels

Thinklogical supplies 5.7" and 9" touchscreens. These are small, Linux computers that run a borderless version of the Chromium browser. On power up, they start the browser with the URL of the X4 server and load the page that's been specified for them with X4's GROUPS page.

Configuration:

By default, the touchscreens are delivered with DHCP networking. In most cases, they will need to be made static.

There are two ways to modify the configuration on a touchpanel. One is to use a USB keyboard connected directly to the touchpanel and make any necessary changes directly on that panel. The other is to connect the touchpanels to a network and log into them remotely. Both methods are described below.

In both cases, you will first need to know the IP address of the web server and decide an appropriate IP address of the touchpanel(s) before configuring them.

Direct Configuration:

1. Attach the USB keyboard to a USB port on the Touch Panel
2. Press Ctrl - Alt - F1 on the Touch Panel to go into text mode
3. When the login prompt appears, login as root with password `emac_inc`

Remote Configuration: Each touchpanel is shipped with DHCP enabled by default.

1. Attach one or more touchpanels to a network with a DHCP server
2. Use "ssh" to access each touchpanel in turn as in
`ssh root@192.168.7.112`
Password: `emac_inc`

```
mba:~ alex$ ssh root@192.168.7.112
root@192.168.7.112's password:
Last login: Thu Oct 11 13:14:31 2012 from 192.168.7.100
vortex86:~# cd /etc/network
vortex86:/etc/network# vi interfaces
```

To set up the network:

4. Type `cd /etc/network`
5. Using `vi`, edit "interfaces"
6. In the section for `eth0`,
 - a. Modify the `dhcp` line to say "static"

- b. Insert a line "address 192.168.13.161" (with whatever IP address you've chosen for this Touch Panel)
- c. Add "netmask 255.255.255.0"
- d. Save and exit

The new interfaces file should look something like this after modification:

```
# /etc/network/interfaces -- configuration file for ifup(8), ifdown(8)

# The loopback interface
auto lo
iface lo inet loopback

allow-hotplug eth0
iface eth0 inet static
    address 192.168.13.112
    netmask 255.255.255.0
    network 192.168.13.0
    broadcast 192.168.13.255
    gateway 192.168.13.1
```

To set the browser to find the server:

Edit /home/user/homepage to match your installation:

```
vortex86:~# cd /home/user
vortex86:/home/user# vi homepage
```

This is a one line file. Change the IP address to match that of the web server (also called the "Control Computer") for your installation and remove "touch" from the line (if it is present).

```
http://192.168.13.9/touch
~
~
~
~
~
I homepage [Modified] 1/1 100%
```

It should look something like this when finished:

```
vortex86:/home/user# cat homepage
http://192.168.13.9/
vortex86:/home/user#
```

Save and exit

The files have now been configured, but the Touch Panel will not use them until the next two steps are performed.

```
vortex86:/home/user# sync
vortex86:/home/user# reboot
```

The touchpanel will now automatically load the page selected in the GROUPS page.

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CONNECT ADMIN MACROS STUDIO COMBI GROUPS LOGOUT

Help

Groups/Users Administration

Import Export **SAVE** Cancel

Click inside any cell to change the contents of that cell, right-click inside any cell to see additional row options, right-click inside any column header to add or delete columns (if appropriate), and press the **SAVE** or **Cancel** buttons (above) when changes are complete.

Logins Required:	Default Group:	Restore on Restart:
yes	admin	no

Group definitions

Group Name:	Startpage:	Page:	Page:	Page:	Page:	Page:	Page:
admin	connect	admin	macros	studio	combi	groups	
user	studio	combi	macros	touchscreen			
touch	combi-m	macros					

User definitions

Username:	Group:	Local Password:
admin	admin	admin
user	user	user

Groups assigned by IP address (touchpanels)

IP Address:	Group:	Comment:
192.168.13.112	touch	

In the configuration shown above, the touchpanel with the IP address of 192.168.13.112 will load the startpage combi-m (or COMBI-M).

COMBI-M is a COMBI page with an additional MACRO button at the bottom right. This button lets the user also access the Macros page and then return to the COMBI page.

In ADMIN Stations we have made some source stations Takeable for the group "touch":

Source Name:	Router Name:	L1:	L2:	L3:	Category:	Category:	Takeable:	Color:
Src 1	A	UR-001	UT-001		ALL		touch	fuchsia
Src 2	A	UR-002	UT-002		ALL		touch	lime
Src 3	A	UR-003	UT-003		ALL		touch	blue
Src 4	A	UR-004	UT-004		ALL		touch	red
Src 5	A	UR-005	UT-005		ALL		touch	purple
Src 6	A	UR-006	UT-006		ALL		touch	orange
Src 7	A	UR-007	UT-007		ALL		touch	yellow
Src 8	A	UR-008	UT-008		ALL		touch	green
Src 9	A	UR-009	UT-009		ALL		touch	navy
Src 10	A	UR-010	UT-010		ALL		touch	aqua
Src 11	A	UR-011	UT-011		ALL		touch	fuchsia

As well as some destination stations:

Destination Name:	Router Name:	L1:	L2:	L3:	Category:	Takeable:	Category:
Dst 1	A	UT-041	UR-041		ALL	touch	
Dst 2	A	UT-042	UR-042		ALL	touch	
Dst 3	A	UT-043	UR-043		ALL	touch	
Dst 4	A	UT-044	UR-044		ALL		
Dst 5	A	UT-045	UR-045		ALL		
Dst 6	A	UT-046	UR-046		ALL		

In ADMIN Macros, we have made “mac 1” available to “touch”

CONNECT ADMIN MACROS STUDIO COMBI GROUPS

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Administration Select from the tabbed cho...

SAVE

Click inside any cell to change the contents of that cell, *right-click* inside any cell to see additional row options, *right-click* inside any *column header* to add or delete columns (if appropriate), and press the **SAVE** or **Cancel** buttons (above) when changes are complete.

mac 1 New Name? (or leave unchanged) mac 1 Delete Th...

Groups that can see this macro

| Group: |
|--------|--------|--------|--------|--------|--------|--------|--------|
| user | touch | | | | | | |

Action:	Destination:	Source:
SHARE	Dst 3	Src 1
SHARE	Dst 6	Src 1
SHARE	Dst 1	Src 2
VIEW	Dst 2	Src 1
SHARE	Dst 8	Src 9

The touchscreen at 192.168.13.112 will now start up in this page:

SOURCES

ALL

Src 1 Dst 6*, Dst 3	Src 2	Src 3 Dst 31*	Src 4 Dst 11*	Src 5	Src 6	Src 7	Src 8
Src 9 Dst 8*	Src 10						

DESTINATIONS

ALL

		(Src 1)
Dst 1	Dst 2	Dst 3

thinklogical TAKE SHARE VIEW BREAK LOCK UNLOCK MACROS

and when the MACROS button at the bottom right is pressed, it will show this page:

[COMBI-M](#) [MACROS](#) [LOGOUT](#)

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Macros *Pressing a button (below) will execute that macro* Macro from History

mac 1

The [COMBI-M](#) link at the top will return to the COMBI page.