

Top view diagram of TCS3 control computer

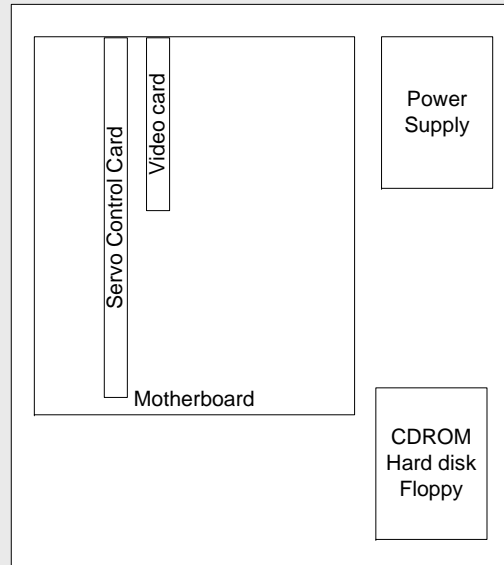
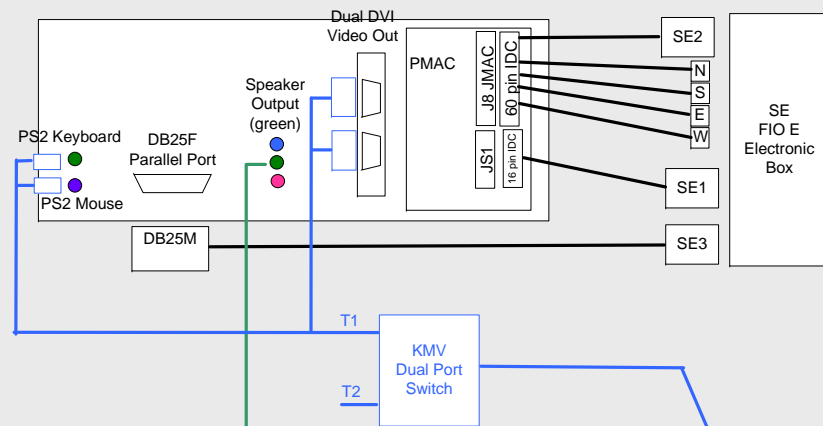


Diagram of back to computers



Description of TCS Computers: t1, t2, t3

Three identical computers are configured for the TCS3 Control System:

- T1 is the summit TCS3 computer system.
- T2 is the spare system for T1, to be located at the summit
- T1hilo is the tcs3 development/Hilo lab computer.

Computer Configuration:

C5CHASSIS (www.chassisplans.com), 4U 19" Rackmount chassis.
 ASUS P4S800 SSI 648FX Motherboard.
 P4/2.8C Ghz 800 FSB CPU
 Geforce FX56000 AGP Video Card
 1024 MB PC-3200 DDRAM
 80 GB IDE Harddisk
 Centos OS 4.x operating system.
 Floppy drive, DVD-ROM drive.
 420 Watt ATX power supply.

Servo Controller Card

The PMAC from Delta Tau Data System will perform the servo PID loop. This is a commercial PCI-based servo controller board. The PMAC configuration is:

- 400-603657-TRX - Turbo PMAC PCI Lite
- 5C0-0TURBO-OPT, Turbo CPU option-5C, default CPU-speed/memory config.
- 3D0-602205-10x - On-board 8Kx16 Dual Ported RAM for PCI or USB.
- 3D0-602205-10x - ACC-8D, PMAC(1) 4-channel breakout board
- 30P-0ACC8D-OPT - OPT-P, 40 cm (16 inch) cable with 60-pin IDC connector
- 306-0ACC8D-OPT - OPT-6, Quad 3-channel encoder isolate board
- 3A0-602678-10x - ACC-28B, 2-channel A/D converter board
- 3B2-00028B-OPT - OPT-2B, 12-pin input terminal block
- 301-00028B-OPT - OPT-1, Additional on board 2-channels A/D converter

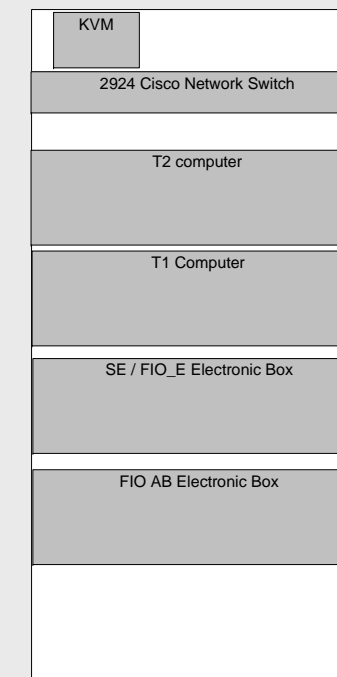
KVM Switch (at summit)

CompuCable Dual Monitor 2-Port USB/PS2 KVM (KVM-201DUO-USB)

Ethernet switch in TCS3 Equipment Rack

Cisco 2924M-XL 24 Port 10/100 Network Switch

Diagram of TCS3 Equipment Rack in TCS Room



Notes on switching between T1 and T2 computer.

The t2 computer is a spare to the T1 computers. The OS is kept a the same revision as t1. It has a PMAC control and cable enable it to be connect to the SE/FIO_E Electronic box. To switch over, follow these steps.

- Power Down SE/FIO_E.
- Disconnect the cable from T1 to FIO_E (SE1, SE2, SE3, N,S,E,W Vel).
- Connect the cable from T2 to FIOE. (SE1, SE2, SE3, N,S,E,W Vel).

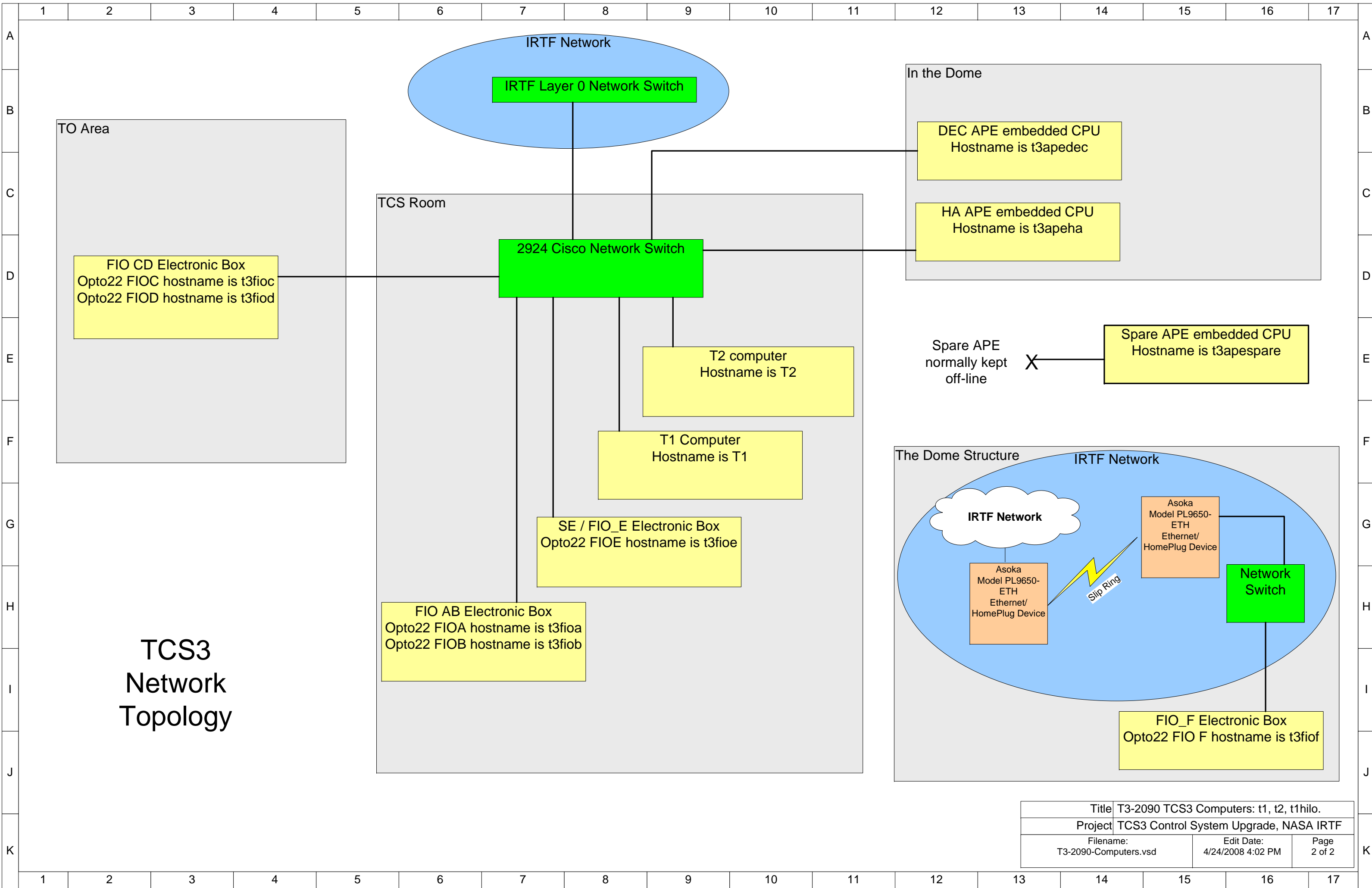
Insure the /home/to directory contains the latest TCS3 software (contact the TCS3 software person). Note that T1 has a daily cron job to rsync /home/to to irtnas1:/home/to. Otherwise you can rebuilt the TCS3 software from source.

Rename the host T2 to T1. This insures network communications to the TCS will not break using to the change in computers.

Observer's Area
TCS3 Audio Output

TO Area

Title	T3-2090 TCS3 Computers: t1, t2, t1hilo.		
Project	TCS3 Control System Upgrade, NASA IRTF		
Filename:	T3-2090-Computers.vsd	Edit Date:	4/24/2008 4:02 PM
		Page	1 of 2



TCS3 Network Topology

Title	T3-2090 TCS3 Computers: t1, t2, t1hilo.		
Project	TCS3 Control System Upgrade, NASA IRTF		
Filename:	Edit Date:	Page	
T3-2090-Computers.vsd	4/24/2008 4:02 PM	2 of 2	