

Screen2Go and Brisque Direct

SCSI Switching Procedure

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Revision History

Revision	Date	Author	Comments
A	Apr 2002	Andre Blignaut / Jose Delgado	Initial release

CONTENTS

Revision History i

1. Introduction 1

2. Tools and Parts Required 1

3. Connecting the Cables 1

4. Selecting Hosts on the SCSI Switch 2

5. Order of Operation 3

6. Troubleshooting 4
   6.1 Connection not responding 4
   6.2 Imaging or SCSI Errors 5

7. Appendix A – Cabling Specifications 6
   7.1 SCSI-3 Data Communication Cables 6

8. Appendix B – Equipment Specifications 7
   8.1 Ancot SCSI Bus Multiplexer/Switch 7

9. Appendix C – Ancot Technical Data Sheet 8

1. INTRODUCTION

This document provides instructions on installing and using a SCSI switch to connect a Screen2Go workstation **and** a Brisque Direct workstation to an output device.

Note: For the SCSI switching to work, the Trendsetter firmware must have the **SCSI boot fix** incorporated. Contact your technical representative for details on which firmware version must be used for your device.

Both Direct and TIFF connections are supported with Brisque version 4. The SCSI switch connects the differential SCSI card from either the Brisque Direct workstation **or** the Print Console workstation to the output device (CTP). The CTP operator must switch the SCSI connection between jobs to ensure that the appropriate workstation is connected to the CTP.

2. TOOLS AND PARTS REQUIRED

The following SCSI and serial connection cables are supplied with Creo output devices:

- 16-3460 CAB,D89,M-F,25',SCRWLK (two)
- 16-3503 CAB,SCSI-3,M-M,25',EXTERNAL,PRE-MOULDED

The tools/parts listed below are in addition to what is supplied with Creo output devices. Parts may be obtained directly by customers, or from Creo, referencing the part numbers shown below:

- Small slot-head screwdriver
- 16-3794 SCSI-3, M-M, 68pin, 6' external data cables (two)
- 94-3142 Differential SCSI switchbox - Ancot UltraSwitch

3. CONNECTING THE CABLES

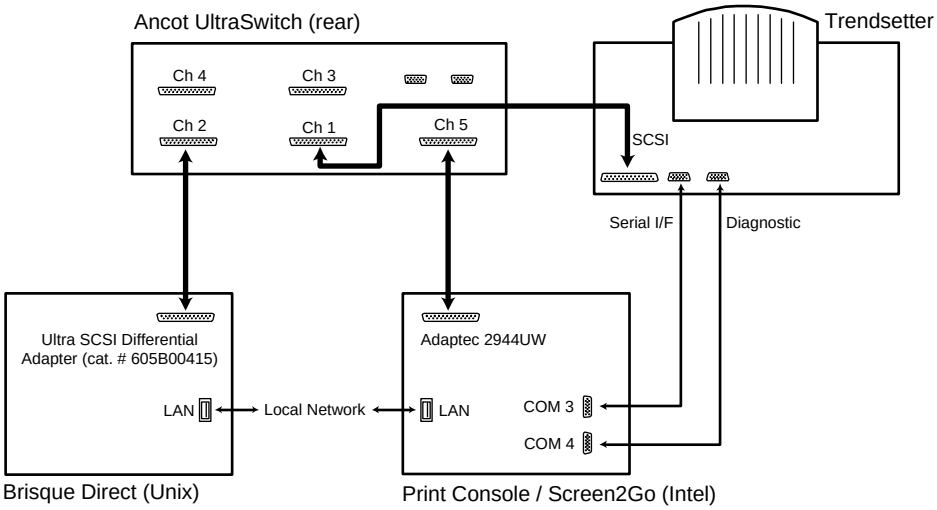
Before connecting a SCSI switch, individually verify that both workstations have been configured properly and can image jobs on the output device.

To connect both workstations to the output device using a SCSI switch:

1. Power off the output device and both workstations.
2. Connect the 25' SCSI-3 cable (16-3503) between the SCSI switch channel 1 and the output device.
3. Connect a SCSI cable (16-3794) between the SCSI switch channel 2 and the host A workstation (Brisque Direct).
4. Connect a SCSI cable (16-3794) between the SCSI switch channel 5 and the host B workstation (Print Console / Screen2Go).

Note: The Ancot UltraSwitch has an internal resistance of 3-7 ohms. This contributes approximately one foot of cable length to the SCSI chain. If you are not using the Creo supplied cables, use cables that are as short as possible.

5. Connect the two serial cables between the host B workstation and the output device as you normally would.
6. Connect both workstations to the local network.
7. Connect power to the SCSI switch using the 5VDC external regulated switching supply.



Cable Connections

4. SELECTING HOSTS ON THE SCSI SWITCH

1. Power on the SCSI Switch.
2. Power on the Trendsetter.
3. Check that the Brisque Direct workstation (host A) is selected on the SCSI switch by noting that indicator lights 1 and 2 are lit. If not, press the **Select** button until they are lit.



4. Power on the Brisque Direct workstation, launch Brisque Direct and wait for the output control software to fully initialize and communicate with the output device.

5. Once the Brisque has completed initialization and shows it is ready for output, switch to the Print Console / Screen2Go workstation by pressing the **Select** button on the SCSI switch until lights 1 and 5 are lit (host B).



6. Power on the Print Console / Screen2Go workstation, launch Print Console, and wait for the output control software to fully initialize and communicate with the output device.

7. Once both workstations have been fully started and initialized, you may switch between hosts as needed. On the SCSI switch, from the host B position (lights 1 & 5 lit), press the **Select** button to cycle through the selections until lights 1 & 2 are lit for host A.

Note: Ensure that no output files are being processed before switching hosts.

When switching between hosts, the output control software should recognize the new connection after a short time in the new position.

5. ORDER OF OPERATION

If your job queue includes jobs from both the Brisque Direct and the Screen2Go workstations, you must manually switch the SCSI switch to the appropriate workstation before a job from that workstation is called up. Shown below is an example of an active queue containing jobs from both workstations and the order of operation.

Note: Failure to follow this procedure will result in an error in operation.

Active queue example:

Job 1 - Brisque Direct

Job 2 - Screen2Go

Job 3 – Brisque Direct

1. Put the queue off-line before the Brisque Direct job (job 1) is finished. The job will finish imaging and the plate or proof will unload.

2. Select host B on the SCSI switch for the Screen2Go workstation.

3. Put the Active queue back on-line.

4. Put the queue off-line before the Screen2Go job (job 2) is finished. The job will finish imaging and the plate or proof will unload.

5. Select host A on the SCSI switch for the Brisque Direct workstation.
6. Put the Active queue back on-line.
   Job 3 will now be imaged.

The Active queue On-line/Off-line button is used as a gateway to control when a job is imaged. To avoid too much manual intervention, order the active queue so that jobs from each workstation are grouped together. For example, image **all** of the jobs from the Brisque Direct workstation, go off-line and switch to the Screen2Go workstation, and image **all** of the jobs from the Screen2Go workstation.

6. TROUBLESHOOTING

6.1 Connection not responding

If the output control software does not recognize the new connection after a few minutes, the connection may need to be re-synchronized. This can be done by one of three ways – starting with the simplest:

- Reset the SCSI switch and reselect the appropriate workstation.
- Switch to the other workstation and then back to the workstation not responding. This may assist the newly connected workstation in recognizing the connection.
- Reset the output device and workstation.
  1. Ensure that the SCSI switch is in the correct position for the selected host.
  2. Power off the output device and the workstation.
  3. Power on the output device, and after one minute, power on the workstation.

The workstation should now find the connection and establish communications with the output device.

6.2 Imaging or SCSI Errors

If you experience any imaging or SCSI errors, you must bypass the SCSI switch to fully troubleshoot the problem.

1. Power off the output device and both output workstations.
2. Power off the SCSI switch.
3. Disconnect the output device SCSI cable from the Channel 1 connector.
4. Disconnect the output device serial interface cable from the serial data switch.
5. Remove the SCSI output cable and COM 1 serial cable from the back of the workstation needed.
6. Connect the SCSI and serial interface cable from the output device directly to the ports on the back of the output workstation.

CAUTION: Take care in connecting the SCSI cable to the computer; the SCSI-3 connector pins can be bent or broken if inserted improperly or with too much force.

7. Power up the output device and workstation, and re-try the imaging. If problems persist, contact the CreoScitex Response Center for assistance.

For additional information on troubleshooting the connection, see the troubleshooting item "No SCSI connection between a Trendsetter and two workstations connected via the Ancot SCSI switch" in the Technical Library.

7. APPENDIX A – CABLING SPECIFICATIONS

Additional cables needed may be purchased through a local electronics supply house or from on-line sources found on the Internet. Two such on-line sources are:

RAM Electronics Industries Inc.

7980 National Hwy. Pennsauken, NJ 08110

Fax: 856-488-9196

www.RamElectronics.Net

National Technology

29516 Union City Blvd

Union City, CA 94587

www.national-tech.com

7.1 SCSI-3 Data Communication Cables

When ordering 2 x SCSI-3 HPDB68 male-male external cable - 3' or 6', RAM Electronics part numbers and ordering information are as follows:

- SCS-44040-A0 Ultra wide or wide differential SCSI cable, wide SCSI-3 HPDB68 male to wide SCSI-3 HPDB68 male, 34-pairs, with thumb screws 3 feet long.
- SCS-44042-A0 Ultra wide or wide differential SCSI cable, wide SCSI-3 HPDB68 male to wide SCSI-3 HPDB68 male, 34-pairs, with thumb screws 6 feet long.

8. APPENDIX B – EQUIPMENT SPECIFICATIONS

8.1 Ancot SCSI Bus Multiplexer/Switch

The Ancot UltraSwitch is the only SCSI switching equipment that will be installed by Creo service engineers. It can be purchased directly through Ancot sales.

Ancot Corporation

115 Constitution Drive

Menlo Park, CA 94025

US Sales Manager: Bret McDonald

Tel: (650) 322-5322

Fax: (650) 322-0455

Email: sales@ancot.com

Web: http://www.ancot.com

9. APPENDIX C – ANCOT TECHNICAL DATA SHEET

ANCOT CORPORATION

UltraSwitch
Universal SCSI Bus Switch



The Ancot UltraSwitch provides complete bidirectional interconnection and switching of multiple high-speed SCSI buses. Up to five SCSI buses can be switched in a 1-to-many or 2-to-2 configuration, supporting connections of up to 60 devices in a SCSI network. The UltraSwitch allows easy sharing of expensive peripherals among multiple hosts, allows a single host to access a very large number of peripherals, and supports high-reliability, fail-safe architectures including dual host systems and multiple SCSI targets.

The UltraSwitch supports HVD ("Differential") or SE, WIDE or NARROW, and all SCSI speeds up to Ultra (40MBytes/sec on a WIDE bus).

The UltraSwitch can be operated under simple manual control or can easily by controlled by one or two host computer systems. When controlled by multiple hosts, the UltraSwitch supports a simple negotiation protocol to allow hosts to share control.

The Ancot UltraSwitch provides a convenient and affordable solution to many SCSI system design issues.

HIGHLIGHTS

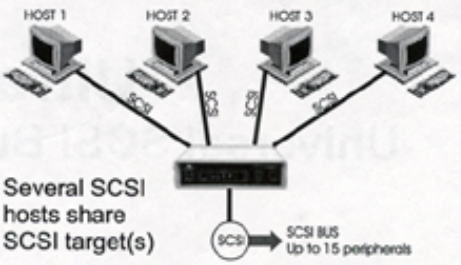
- Allows switching and interconnection of multiple SCSI buses
- Bidirectional connection of all SCSI data and control lines
- Supports Single-Ended (SE) or High Voltage Differential (HVD) interfaces
- Supports both NARROW (8-bit) and WIDE (16-bit) buses
- Supports all SCSI data speeds up to Ultra (FAST/20, 40MBytes/sec over WIDE bus)
- Supports any legal mix of initiators and targets
- Switching can be manual via simple push-button or computer-controlled via serial port(s)
- Supports negotiation between two host systems
- Switching patterns supported include 1-to-2, 1-to-3, 1-to-4, and 2-to-2
- Disconnected branches are automatically terminated (HVD only)
- Does not require any reserved SCSI ID

UltraSwitch — Universal SCSI Bus Switch

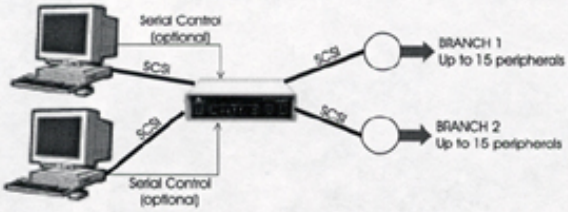
CONFIGURATION EXAMPLES



One host connects to many SCSI targets



Several SCSI hosts share SCSI target(s)



Two-to-two switching ("fail over" configuration)

INDIVIDUAL LINE SWITCH UNIT CHARACTERISTICS

- Branch-to-branch DC resistance: 3.5 ohm typ., 7 ohm max.
- Input capacitance: 25 pF
- Branch-to-branch propagation delay: 1 nanosec max.
- Response time: Tplh across switch 2 nanoseconds (typ.)
- "On" voltage: 6.2 V max (common, or any "on" branch bus)
- "Off" on any "off" branch bus: 6.2/-1.0 V
- "Off" current between common and single "off" branch bus: 0.5 microamp max.

SCSI TERMINATION

All disconnected channels are automatically terminated if used with differential SCSI busses. Automatic termination is disabled if used with single-ended busses.

PHYSICAL DESCRIPTION

FRONT PANEL: Ten switch status LED indicators, LEDs for ACTIVE, DIFFERENTIAL, and POWER. Two pushbutton switches, one for switch combination selection and one for system reset.

BACK PANEL: Five 68-pin high density 'P' type SCSI connectors, two DB-9 serial port connectors, and a 5-pin DIN female connector for +5 VDC power.

CE & FCC CERTIFICATION

The UltraSwitch is CE/FCC certified. The external power supply is CE, FCC, UL, and TUV certified.

PACKAGING & POWER

Housed in an elegant, high quality, metal enclosure
Dimensions: 10" W x 3" H x 10.5" D (25 x 7.5 x 27 cm)
Weight: 4.2 lb (1.9 Kg)
Power: External regulated switching 5 VDC power supply for 110-220 VAC, 50-60 Hz, auto-ranging

ORDERING INFORMATION

USwitch/SSU Two serial ports for control by external host(s), US AC power cord

USwitch/SPU One serial port and one parallel port for control by external host(s), US AC power cord

USwitch/SSE Two serial ports for control by external host(s), European AC power cord

Uswitch/SPE One serial port and one parallel port for control by external host(s), European AC power cord

WARRANTY

One year return to factory

Prices and specifications subject to change without notice.

www.ancot.com
(650) 322-5322
Fax: (650) 322-0455

ANCOT CORPORATION

115 Constitution Drive
Menlo Park, California
94025