Brisque - TSP Troubleshooting Guide

For TSP and TSP100 Boards

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Overview

This document lists and describes the Turbo Screening Processor (TSP) error messages that can occur in all devices using the TSP and TSP100 boards. It summarizes the possible problems causing each error, and provides instructions for resolving each one. It includes the following sections:

- **TSP Error Messages**, page 4 lists the TSP error messages covered in this document. It includes the error code number, error category and type, and indicates to which machine (device) each error message applies.
- **Brisque - TSP Error Messages**, page 5, provides a problem description, common reason and action and additional comments for each error message. Each action is fully detailed in the section titled, **Action Details**, on page 13, as described below.
- **Action Details**, page 13, provides instructions for performing each action listed in the Common Reason/Action column for each error message listed in the section titled, **Brisque - TSP Error Messages**, on page 5.
- **TSP FAQs**, page 18, provides answers to common questions about the TSP.

Using this Guide

This guide is designed to be used in the following way:

1. Locate the relevant error in the section titled, **Brisque - TSP Error Messages** on page 5. Each error is listed by error code, and a problem description is provided along with additional comments for each one. In the **Common Reason/Action** column, both the possible reason for the error and the method for resolving the problem (the action) are listed.
2. Perform the actions(s) listed in the **Common Reason/Action** column, in the order listed, as required. You will find detailed instructions for each action in the section titled, **Action Details**, on page 13.

Note: After completing each action, you can verify whether the problem has been resolved. If the problem persists, perform the next action listed.

TSP Error Messages

This section consists of a table that lists each error message covered in this document along with the error category and type for each one. It also indicates the machines (devices) to which each error message applies.

Error Code	Error Category	Error Type	Relevant Devices:			
			CTF	CTP	Trendsetter	Screen2go
7100	TSP S/W-Driver Error	(tsp_open_error_e)	●	●	●	●
7101	TSP S/W-Driver Error	(tsp_reset_error_e)	●	●	●	●
7102	TSP S/W-Driver Error	(tsp_init_error_e)	●	●	●	●
7103	TSP S/W-Driver Error	(tsp_finish_error_e)	●	●	●	●
7104	TSP S/W-Driver Error	(tsp_close_error_e)	●	●	●	●
7105	TSP S/W-Driver Error	(tsp_ioctl_error_e)	●	●	●	●
7106	TSP S/W-Driver Error	(tsp_unknown_interrupt_e)	●	●	●	●
7107	TSP S/W-Driver Error	(tsp_outdma_error_e)	●	●	●	●
7108	TSP S/W-Driver Error	(tsp_io_error_e)	●	●	●	●
7109	TSP S/W-Driver Error	(tsp_serial_error_e)	●			
7120	TSP H/W Error	(tsp_altera_load_error_e)	●	●	●	●
7121	TSP H/W Error	(tsp_clk_gen_error_e)	●	●	●	●
7122	TSP H/W Error	(tsp_delay_line_error_e)	●			
7123	TSP H/W Error	(no_room_in_buffers_e)	●	●	●	●
7125	TSP H/W Error	(tsp_lb_int_error_e)	●	●	●	●
7128	TSP H/W Error	(tsp_out_bm_hdr_error_e)			●	●
7145	TSP S/W Error	(tsp_screen_error_e)	●	●	●	●
7148	TSP S/W Error	(tsp_cant_open_file_e)	●	●	●	●
7155	TSP H/W or S/W	Internal Error	●	●	●	●
5151	TSP S/W Error		●			
5152	TSP S/W Error		●			
5153	TSP S/W Error		●			
5154	TSP S/W Error		●			
5155	TSP S/W Error		●			
6840	TSP S/W Error	TimeOut expose	●	●	●	●

Brisque - TSP Error Messages

This section consists of a table that describes each error message listed in the previous section, along with the common reason for the error and the action required to resolve the error. Additional relevant comments are also provided for each error message.

Note: Each action listed in the **Common Reason/Action** column of this table corresponds to the sub-section of the same name in the section titled, **Action Details**, on page 13. Each sub-section includes instructions for checking the relevant item, and resolving any problems that may exist.

Brisque Error Message	Problem Description	Common Reason/Action	Comments
Error 7100	Application can't open the TSP device driver	1. ODM 2. Brisque-S/W	This error code usually relates to the Brisque S/W. The Brisque-S/W cannot access Driver-S/W for some reason. It can be due to mismatched S/W components, such as versions, updates, drivers, and so on.
Error 7101	TSP reset failed	1. ODM 2. Brisque-PCI slot 3. Brisque-S/W 4. TSP-H/W	May appear only as a result of "Release Screen Processor" action. The S/W failed to reset to the TSP board. This can be due to S/W or H/W problems that can prevent the reset command from being activated.
Error 7102	TSP initialization failed	1. ODM 2. Brisque-PCI slot 3. Brisque-S/W 4. TSP-H/W	The TSP is initialized before each exposure. During initialization, different parameters and components are initialized before exposure starts. The fail can be due to Brisque S/W problems, or to H/W problems.
Error 7103	TSP finish failed	1. ODM 2. Brisque-PCI slot 3. Brisque-S/W 4. TSP-H/W	At the end of exposure, the Brisque brings the TSP to “finish” state. The fail can be due to Brisque-S/W problems, or to H/W problems.
Error 7104	TSP close call failed	1. ODM 2. Brisque-S/W	Close is a S/W action that terminates the session between Brisque-S/W and the TSP. When this error occurs, please check the Brisque S/W components, including version, driver and update.
Error 7105	TSP/driver control error	1. Brisque-S/W 2. Brisque-PCI slot 3. TSP-H/W	Brisque TSP driver uses control commands to control the TSP board. This error can be due to Brisque S/W problems, or to H/W problems.

Brisque Error Message	Problem Description	Common Reason/Action	Comments
Error 7106	TSP interrupt problem	1. Brisque-PCI slot 2. Brisque-S/W 3. TSP-H/W	The TSP works within a PCI environment. Interrupt is one method by which the TSP performs a handshake with the CPU (the TSP sends an interrupt signal to the host via the PCI bus). This error occurs when the host receives the interrupt signal, but does not identify the source. Usually, this is due to the signal ending before it is received. The source of this problem can be either the Brisque-S/W or H/W, including the PCI bus and/or other boards installed in the PCI.
Error 7107	TSP/DMA transfer failed	1. Brisque-S/W 2. Brisque-PCI slot 3. TSP-H/W	The TSP initialization and exposure processes include many Direct Memory Transfers (DMA), which are done via the PCI. When this problem occurs, check both the Brisque-S/W and H/W.
Error 7108	TSP/PCI I/O error	1. Brisque-S/W 2. Brisque-PCI slot 3. TSP-H/W	TSP commands are sent by I/O transfer. This error can be due to either the Brisque-S/W or the TSP-H/W. In addition, it can indicate a PCI problem.
Error 7109	TSP communication port error	1. Data-Cable connection 2. Brisque-S/W 3. Machine-S/W 4. Machine-H/W 5. TSP-H/W	**Note:** This error applies only to CTF devices. CTF devices use the communication port on the TSP. The data cable connects this port to the device communication port. This error can be due to problems in the communication link (cable/TSP port/device port), and/or Brisque-S/W or machine-S/W problems.
Error 7120	TSP prepare plot error	1. TSP-H/W 2. Brisque-S/W 3. Brisque-PCI slot	The TSP is initialized before each exposure. As part of the initialization process, files are loaded into the TSP. This error occurs when file loading to the TSP fails during initialization. It can be related to the Brisque-S/W, and may be due to missing, renamed, moved and/or damaged files or file attributes.
Error 7121	TSP internal clock error	1. TSP-H/W	TSP internal error. Frequency initialization has failed.

Brisque Error Message	Problem Description	Common Reason/Action	Comments
Error 7122	TSP calibration error	1. Brisque-S/W 2. Machine-S/W 3. TSP-H/W	**Note:** This error applies only to CTF devices. During the prepare-expose stage, the TSP performs internal calibration, which relates to the output device expose clock frequency. This error occurs when the TSP mechanism fails to perform the internal calibration. This can happen when the following occurs: • TSP-H/W problem • Invalid or unsupported frequency value being received • Incorrect Brisque-S/W version • Corrupted nspParam.dat file • Overheating due to poor ventilation or bad conditions in the workroom.
Error 7123 Error 5230	TSP timeout error No Room in input buffers Output Buffers are ready Output device doesn't fetch data	1. Data Cable connection 2. Brisque-S/W 3. Machine-S/W 4. Machine-H/W 5. TSP-H/W	During exposure, the Brisque-S/W sends exposure data to the TSP (LW,CT,Tiff) input buffers. The TSP then merges and halftones the data, and in the final stage, fills the output buffer. This error occurs when the TSP output buffers (after merge and screen) are full and ready to be used, but the data cannot be pulled from the TSP. This can be due to anything that causes a pause in the data request from the Brisque, as follows. **Brisque/LotemFC Configuration** In most of the cases this is due to a TSP/DDB connection problem, such as the data cable not being properly connected. In this case the Lotem will continue to expose as if everything is okay, but the exposed plate will have no image, or only a partial one (a mismatch line number message is displayed on the Lotem PC). This problem can also be due to: • Malfunction of Cable/DDB/TSP components. • Mismatch of Brisque/Machine-S/W • Machine data cable connected to wrong DDB board port (machine configuration is done via the 10BaseT port of the Brisque/LotemPC and will not show the problem). • Late or slow loading plate process, stuck carriage, and so on.

Brisque Error Message	Problem Description	Common Reason/Action	Comments
Error 7123 Error 5230 (continued)			**Brisque-LotemQ Configuration** In most of the cases this is due to a 2xTSP-TMCE board connection problem (Y-cable), such as the cable not being properly connected. In this case, the LotemQ will be on Stop Spiral and the carriage will not move. Check the connection between the Brisque and the TMCE, and verify that it is fully secured. This problem can also be due to: • Problems with one of the two TSP boards • Problems with the cable • TMCE malfunction • Mismatch of Brisque/Machine-S/W (Verify the correct versions are loaded into the Lotem and the Brisque, including updates). Please note that when this error message is displayed together with the following two symptoms, the two cable connectors on the Brisque side are connected to the wrong plugs. • In jobs calling for an odd number of lines to be exposed, the device completes only 99% of the exposure. • Screen cells are not filled. **Note:** You must examine the image on the plate using a microscope to confirm this symptom. To solve this problem, disconnect, swap and reconnect the two connectors. **Brisque-CTF Configuration** Possible causes of this problem include: Damaged or improperly connected cable (between the Brisque and the device port). H/W which relates the cable connection may be malfunctioning. Check cable and cable connectors, and the H/W ports on both sides. The Brisque-S/W, SOMC, TSP-H/W and in rare cases, the Strobe board can cause the same phenomena. **Note:** Anything that delays or prevents the machine from pulling data from the TSP/Brisque can cause this problem.

Brisque Error Message	Problem Description	Common Reason/Action	Comments
Error 7125	TSP line length error	1. Exposure parameters 2. Brisque-S/W 3. Machine-S/W 4. Data Cable Connection 5. TSP-H/W	The length of the last line exposed (the line which was sent from the TSP to the output unit) is shorter than it should be, and when detected, the expose process is stopped by the TSP. This error occurs whenever the exposed line length is 2 or more pixels shorter than the defined length. It indicates a problem with the exposed line length and/or the data. In addition, this error can occur when exposing a Tiff file/Monoscan job that exceeds the Max Expose area on the plate. **Direct Mode Connection:** When Working in a direct mode connection, data is sent to the device directly thorough the TSP data cable. In addition to the information above, this error can occur due to: • Device electronics system malfunction • Brisque/device data cable malfunction Refer to the TSP site at TechPlanet for additional information.
Error 7128	TSP line length error	1. Brisque-S/W 2. TSP-H/W	This error appears in applications such as Screen2Go, Kodak XP, and Trendsetter (SCSI connection). In such applications data is returned to the disk and then sent to the device. If Something goes wrong with the data at the output from the TSP, such as a missing header at the data stream to the disk, this error message is displayed.
Error 7145	TSP Screen Engine error	1. Screen Set parameters	Mesh value too low. The “resolution / (mesh x cos(angle)” parameter is application dependent. The values that can be entered for this parameter must be within the acceptable range. Verify that the Mesh value is within the acceptable range for the specific application. Refer to TechPlanet>Color, Screening and Calibration>Turbo Screening> Turbo Screening Technical Information for information about Screen Set parameters. **Note:** You can change resolution/mesh values in order to verify whether this is the problem.

Brisque Error Message	Problem Description	Common Reason/Action	Comments
Error 7148	Brisque-S/W can't open file	1. Brisque-S/W	Brisque-SW error. This error occurs when the Brisque-SW cannot access one of the files needed for the expose application. This can be due to: • Deleted, renamed or moved system files • Deleted, renamed or moved application files • Incorrect file attributes • File usage by another application • SW corruption
Error 7155	TSP internal error No room in input buffers Output buffers are empty Output device on StopSpiral	1. Exposure parameters 2. Brisque-S/W 3. TSP-H/W	This is an internal Brisque-S/W or TSP-H/W error, and does not relate to output devices. This error occurs when the TSP input buffers are filled with data, but the TSP output buffers are empty. This can be due to: • Illegal expose parameters • Illegal Screen Set parameters • Problem completing TSP merge process • Screen generation process Please check all job/Brisque related details, including, but not limited to: • Job validity • Screen Set parameters • Size format **Tip:** Display the job using the **Preview** option. If the preview is okay, the job is probably okay. If the preview is not okay, there is a problem with the job, and not with the TSP.
Error 6840	Timeout expose	See Error 5230	Expose Timeout There are several defined timeout periods for data transfer to the TSP that are activated by the different S/W modules. This particular error occurs when the data transfer exceeds the defined timeout period, but it is activated by modules other than those associated with error 5230. Refer to Error 5230 for details.

Brisque Error Message	Problem Description	Common Reason/Action	Comments
Error 5151	Device busy		This error can occur when the device is busy with another host (DFE), for example, when more than one DFE is connected to the same device. It can also occur when more than one job is being run from one DFE, or when a calibration application that requires exclusive ownership of the device is being run while the device is busy. Usually, this error is only an indication that the current process is taking longer than it should, and does not indicate a true error. Most likely, as soon as the current process is completed, exposure will continue as expected.
Error 5152		1. Machine-S/W 2. Brisque-S/W	This error applies to older CTF devices that use the std5 protocol. It occurs when the DFE fails to read one or more messages from the plotters. Reboot, and then restart the plotter. Then, check both the Device and the Brisque-S/W as described on page 13. Be sure to verify that the versions are compatible.

Brisque Error Message	Problem Description	Common Reason/Action	Comments
Error 5153		1. Machine-S/W 2. TSP-H/W	This error is device related, as described below: **Small CTF** Any error other than: • Busy With OtherPort • Communication Port Error. **Large CTF** • Plotter Abort • Plotter Fatal Error • Plotter Disconnect Communication • Plotter Fatal Que Error • Communication Time Out **LotemFC** Any error other than: • Busy With Other Port • Communication Port Error • Enter To Hold Sequence • Exit From Hold Sequence • Table Do Not Exist • Resolution Do Not Exist
Error 5154		Check all TSP connections and verify that they are secure.	This error usually occurs when the device is not properly connected to the TSP, for example, when the TSP cable is loose or unplugged.

Action Details

Brisque - PCI slot

This procedure is to be performed whenever you suspect a problem with the PCI bus connection.

Note: This is the most common cause for the 7120 error message.

- **To troubleshoot the Brisque/PCI Slot:**

1. Locate the TSP Board and verify whether it is installed in the recommended PCI slot. If it is not, complete the following steps, and then reinstall the TSP Board in the recommended PCI slot.
   Note: Every Digital Front End (DFE) has a recommendation for TSP/PCI Slot installation. Refer to the Installation Guide for details.
2. Remove the TSP Board from the PCI slot.
3. Verify whether the Screen Generator (smaller) Board is securely attached to the TSP (larger) Board, and that the three securing screws are tightly closed. If they are not, secure the Screen Generator Board to the TSP Board by carefully pressing them together, and then tighten the three securing screws.
4. Inspect the TSP/PCI Edge Connector for dirt and/or damage. Clean the edge connector on the TSP Board, as required. If damage is found, replace the TSP Board, as required.
5. Inspect the PCI slot for dirt and/or damage. Clean the PCI slot, as required. If damage is found, try using an alternative slot.
6. Further inspect the TSP Board for other signs of damage, such as broken leads, broken PCBs or other mechanical damage. If found, install a new TSP Board.
7. Check the service record or otherwise verify whether there are other boards, especially newly installed boards, that share the same bus. If there are, remove them, perform step 7 and verify whether the problem is solved.
8. Reinstall the TSP Board, or install a new TSP Board, as required. Verify that the TSP board is fully and properly inserted in the PCI slot.

TSP - H/W

This procedure is to be performed whenever you suspect a problem with the functionality of the TSP Board.

➢ **To troubleshoot the TSP Board:**

1. Locate the TSP Board and verify whether it is firmly plugged in to the PCI slot.
2. Verify whether the Screen Generator (smaller) Board is securely attached to the TSP (larger) Board, and that the three securing screws are tightly closed. If they are not, secure the Screen Generator Board to the TSP Board by carefully pressing them together, and then tighten the three securing screws.
3. Run the TSP diagnostic program, as described on page 23.
   Note: The TSP diagnostic covers 95% of hardware malfunctions.
   If the result is **Pass** but the problem persists, check the data cable connection, as described in **Data Cable Connection**, below.
   If the result is **Fail**, install a new TSP Board. Be sure to fill out the TSP repair tag and return it together with the malfunctioning TSP Board.

Data Cable Connection

This procedure is to be performed whenever you suspect a problem with the data cable connection.

Note: Problems with the data cable connection are not identified by diagnostics.

➢ **To troubleshoot the data cable connection:**

1. Locate and remove the data cable.
2. Visually inspect the cable for signs of damage, such as cuts or wear. If found, install a new data cable.
3. Visually inspect the following data cable connectors for dirt, debris and/or damage. If dirt or debris is found, clean the connectors, as required. If damage is found, install a new data cable.
   - TSP female connector (62 pins), and male counter-part
   - Lotem FC only: DDB female connector (62 pins), and male counter-part
   - Dolev only: OMC female connector (26 pins), and male counter-part
4. Replace, or install a new data cable, as required. Verify that the connectors are securely attached to the correct port (For the Lotem FC: the data cable connection is on the DDB side of the middle connector). Refer to the installation guide for details.

Brisque - S/W

This procedure is to be performed whenever you suspect a problem with the Brisque software.

- **To troubleshoot the Brisque software:**

1. Restart the Brisque.
2. Verify the currently installed Brisque software version and update.
3. Contact the support center and verify the most recent software version and/or update available. If the newest update is not currently installed, ask the customer if they would like you to install it now.
4. Check with the customer and/or the service record to identify any patches that may have been installed in this station.
5. Reinstall the Brisque software. Be sure to reinstall any patches that are not included in the software version you are installing.
6. Report any Brisque software bugs.

Machine - S/W

This procedure is to be performed whenever you suspect a problem with the machine (device) software.

- **To troubleshoot the machine software:**

1. Restart the machine.
2. Verify the currently installed software version and update.
3. Contact the support center and verify the most recent machine software version and/or update available. If the newest update is not currently installed, ask the customer if they would like you to install it now, or stay with the current version.
4. Check with the customer and/or the service record to identify any patches that may have been installed in this machine.
5. Reinstall the machine software. Be sure to reinstall any previously installed patches that are not included in the version you are installing.
6. Report any machine software bugs.

Exposure Parameters

This procedure is to be performed whenever you suspect a problem with the exposure parameters for a particular job. Refer to the Turbo Screening Technical Information site for additional information.

➢ **To troubleshoot exposure parameters:**

1. Verify that the file width does not exceed the maximum line width for the image device being used.
    - **For the LotemFC:** Check the values entered for the following Lotem parameters. Change the values, as required, or ensure that the default values are entered.
        - Media Width Bottom Mech Margin (mm)
        - Media Width Top Mech Margin (mm)
2. Verify that the O/I (Output-Res/CT-Resolution) ratio is greater than 3.
3. Verify that the CT Pages in each layout do not overlap.

Screen Set parameters

This procedure is to be performed whenever you suspect that out-of-range values have been entered for one or more Screen Set parameters (resolution and mesh) for a particular screen set.
Note: The valid range for these parameters varies according to the application and machine. The values entered should be greater than or equal to either 64, 128 or 256, depending on the application and machine being used. Refer to the Turbo Screening Technical Information site for additional information.

➢ **To troubleshoot Screen Set parameters:**

1. Check the values entered for the Res/Mesh/cos(angle) ratio.
2. Verify the valid range according to the application and machine being used.
3. Adjust the values for these parameters, as required.
4. If the problem persists, try to expose a with a different screen set.

Object Data Manager (ODM)

The AIX operation system keeps all information about devices in a dedicated repository. If TSP Board related entries in this repository are corrupt, the TSP Board can or exhibit erroneous behavior or become inaccessible.

Perform this procedure whenever you suspect a corruption of TSP Board related repository entries.

➢ **To troubleshoot the ODM:**

1. Open the terminal window and log in as root.
2. From the command line, run the following command:
   - lsdev -Cspci | grep nsp

   A list of all installed TSP Boards is displayed. For example, nsp0, nsp1 and so on.
3. For each installed TSP Board, run the following command from the command line. The example below shows the command for TSP Board nsp0.
   - rmdev -l nsp0 –d
4. Repeat this command for all installed TSP Boards, inserting the relevant board number into the command. For example, rmdev -l nsp1 –d, rmdev -l nsp2 –d, and so on.
5. From the command line, run the following command, and verify that the board state is **Available**.
   - /scitex/version/scripts/drv_odmdel.sh nsp
6. From the command line, run the following command:
   - odmadd /scitex/version/odm/sysAdd/nsp.add
7. From the command line, run the following command to configure the boards:
   - cfgmgr
8. From the command line, run the following command to verify which boards are configured and the status of each one:
   - lsdev -Cspci | grep nsp

TSP FAQs

Question	Symptom	Answer
What should be done if there is no config with CTF device?	On the Brisque: - Config does not recognize the CTF device. On the CTF device: - exposure won't start	During the config process, the Brisque identifies the connected device and device parameters. In CTF devices, the config runs through the TSP/machine data cable (through the TSP). The TSP has a special communication port for CTF devices. The TSP cable for CTF transfers the control link to the device. Run diagnostics on both the machine and the TSP. Keep in mind that diagnostics does not cover the connection between the SOMC and the TSP. Perform the following: 1. Reset the TSP board using the config dialog. 2. Restart the machine and the Brisque. 3. Check Brisque software, as described on page 15. 4. Check Machine software, as described on page 15. 5. Check the data cable connection, as described on page 14. 6. Replace SOMC board. 7. Replace TSP board. 8. Check the cable, and replace, as required.

Question	Symptom	Answer
What should be done if there is no config with Lotem-FC/Q device?	On the Brisque: - Config does not recognize the Lotem. - Cannot ping from Brisque to Lotem (using the command and Lotem IP address). On the Lotem: - exposure won't start.	During the config process, the Brisque identifies the connected device and device parameters. In the Lotem, config runs over the **LAN-TCP/IP** connection with the device (not through the TSP). If the ping command to the device IP address does not work, then there is problem with the TCP/IP connection. If this is the case, perform the following: 1. Check the Brisque to Net connection, as follows: • Check LAN/Point-To-Point cable connection. • Run ping to the Brisque Address to see that the Brisque is well connected to the LAN. 2. Check Lotem connection to Net, as follows: • Check LAN/Point-To-Point cable connection. • Run ping from PC Controller to the Lotem Address to see that the Brisque is properly connected to the LAN • Check Lotem IP address. • Check Brisque IP address definitions (IP address are located on the /etc/hosts file). • Make sure Lotem-PC IP address is correct 3. If the problem persists: • Reload Brisque-S/W, or latest update. • Reload Lotem-S/W, or latest update. • Replace Lotem LAN communication board. • Replace Brisque communication board. • Check, repair and/or replace the Hub and Hub connection cables, as required.

Question	Symptom	Answer
What should be done when the “Mismatch in line number” error message is displayed on the LotemFC PC Controller?	On the Brisque: -Brisque fails, and error message number 5230 is displayed. On the Lotem: - exposure ends with mismatch in line number message. - either no, or partial image on the plate.	During exposure, the Brisque software sends exposure data to the TSP (LW,CT,Tiff) input buffers. The TSP performs merge and halftoning of the data, and in the final stage, fills the output buffer. This error means that, although the TSP Output buffers (after merge and screen) are full and ready to be used, the device did not retrieve the data from the TSP. The device, however, does not notice this condition. In most cases, there is either no, or a partial image on the plate. There are several possible reasons, as follows: **Brisque-LotemFC configuration** Usually, this is due to a bad TSP-DDB connection. Probably, the Data cable is not properly connected. If this is the case, the Lotem will continue to expose as if everything is okay, but there will be no image on the exposed plate and a mismatch line number message will be displayed on the Machine. Other possible causes can include: • Malfunction of the Cable/DDB/TSP components. • Brisque/Machine-S/W or S/W mismatch between the device and the Brisque. • Incorrect connection of the machine data cable connector to the DDB Board (it should be plugged into the middle connector). **Note:** Machine configuration is done via the 10BaseT port of the Brisque/LotemPC and will not show the problem. Other causes of a pause in the data request from the Brisque, such as late or slow plate loading or carriage stack, and so on.
Can abnormal termination of plate exposure cause problems?		In most cases, the abnormal termination of plate exposure does not cause any problems. However, in rare cases, abnormal termination may cause problems during subsequent plate exposure (which are not yet handled by the application). In these cases, you need to reset the TSP board and return to normal conditions, as described in the chapter on output device configuration in the Brisque User Guide.

Question	Symptom	Answer
How can I view the TSP/PCI Status?		TSP status can be either: **Defined** - TSP is communicating with the Driver (low-level S/W) Or- **Available** - TSP communicating with the Brisque Expose S/W. (includes the defined status). **Defined** is a prerequisite to **Available** (the TSP status must be **Defined** before it can change to **Available**). TSP on PCI status should be **Available** to enable proper TSP/Application communication. If the TSP board status cannot become **Defined**, there is a problem with either the low-level S/W, or with the PCI or the TSP board. To verify TSP on PCI status: • Run lsdev –C command from Brisque Unix window, and look for the nsp0 line. • The TSP status (either **Available** or **Defined**) is displayed in column 3. • The PCI slot in which the TSP is installed is included in the displayed report. **Note:** If nsp0 is not displayed, the Board was not recognized in the Brisque start-up process. In this case, run the cfgmgr command or restart the Brisque. For Lotem with QuantumV model and DolevV4: Because these devices include 2 TSP boards, you will get a line with nsp1 device and status in addition to nsp0.

Question	Symptom	Answer
How can I reset the TSP board(s) for a Unix platform?		In some cases where the previous expose process has been abnormally terminated, the subsequent expose process will not begin. This is due to the TSP still being occupied with the previous expose process. Abnormal termination can be due to: • Error while exposure in Brisque or Lotem. • Killing a process on the Brisque while exposure is active. • Open monNsp utility during exposure. **To reset the TSP Board:** Perform one of the following: • Click the **Reset Boards** button in the **Brisque Device config** dialog box. • Run monNsp command from Brisque Unix window and, after the monitor is up, run quit command, >q . • Use the kill –9 command to kill both the pltDc and expose process (if they are alive while there is no exposure running) and then reset the board(s) from the config menu. If the problem persists after completing the previous steps: • Shut down and then restart the Brisque application. • Power off and then power on the Brisque.
How can I view TSP debug information during exposure?		Debug information can help you find the source of various problems. It includes a detailed report about TSP expose parameters, current TSP status, Job information and more. In addition, debug information can be saved, printed, and/or emailed to the PSS for analysis. ➢ **To view TSP debug information:** 1. From the command line run the following command: • setenv NSP_DEBUG_MODE print 2. Expose the Job-Ticket from the command line using the **messages go for file** attribute. For example, when exposing a CTF Job, use the following syntax, where **xxxx** stands for Job ticket name, and **aaa** represents the report file name: • expose **xxxx**.jt 0 expose > **aaa**

Question	Symptom	Answer
What is tspError.log file?		The TSP Error Log file (**tspError.log**) is a file in which internal TSP status is logged. It consists of detailed reports that include data that has accumulated since the last shutdown (the data is automatically erased each time the Brisque is shut down). These detailed reports can be analyzed when troubleshooting problems that occur during exposure, and sent via email to the PSS for additional analysis, as required. The TSP Error Log file is located in the **/tmp** directory of the Brisque.
How do I run diagnostics on the TSP?		On Brisque Version 4.0.xxx: 1. Activate **SciSmit** icon. 2. Double-click the **PlotDiag** icon 3. Select option **2.plotters** 4. Select option **1.NSP/TSP** Diagnostics cover approximately 95% of the TSP- H/W. It does not cover the final interface output stage to the device. In case there are **Fail** results, send the board to the repair center. If there are no fail results, then the H/W is probably good and there is high probability that the problem is somewhere else in the system, such as: • Brisque-S/W • Machine connection • Machine-H/W or S/W • Bug In any case if you decide to replace the board please fill out the TSP repair tag. This will enable us to re-create the problem, repair the TSP, enhance the diagnostics, and most importantly, to enhance reliability and improve the system.

<table>
<tr><th>Question</th><th>Symptom</th><th>Answer</th></tr>
<tr><td>How do I find out into which PCI slot a TSP Board is inserted?</td><td></td><td>To verify the slot location of the TSP-0 and/or TSP-1 in Brisque Version 4.0.xxx
1. Double-click the SciSmit icon.
2. Click Information.
3. Select the Platform Information option.
4. In the displayed dialog box, locate the nsp0 and the nsp1 section – the slot number is displayed for each one.
Note: On the Brisque, corresponding slot numbers are shown on the stickers either on the cover, the backside, or on the TSP bracket. Refer to the device installation guide for detailed information about recommended TSP/PCI slot locations in each Brisque-type.</td></tr>
<tr><td>Which TSP Board controls which laser on the Dolev800v4?</td><td></td><td>The following table summarizes the relation between the Brisque/TSP and the Dolev/Laser diodes.
<table><tr><th>Device config</th><th>scismit</th><th>Cable label</th><th>Dolev diode</th><th>Communication port</th></tr><tr><td>TSP0</td><td>nsp0</td><td>TSP1</td><td>Laser1</td><td>yes</td></tr><tr><td>TSP1</td><td>nsp1</td><td>TSP2</td><td>Laser2</td><td>no</td></tr></table></td></tr>
<tr><td>Which TSP Board is configured to communicate with the Dolev800v4?</td><td></td><td>See the Communication port column in the table included in the answer to the previous question.</td></tr>
<tr><td>If one of the TSP Boards is malfunctioning, can the Dolev800v4 still expose?</td><td></td><td>Yes, as long as the TSP0 Board is functioning.
To continue working, enter the following into the fields of the config menu:
1. First Screen Board question: Choose first TSP0 - It will be the communication board to the Dolev.
2. Second Screen Board question: Choose Disabled (instead of TSP1 or TSP2) from the pop-up menu.</td></tr>
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