REFTEK™
EXCEPTIONS DOCUMENT
for
PASSCAL SOFTWARE

January 1999

Document No. 72A-5-004-00.1
Exceptions for PASSCAL Software Version 2.72 (June 30, 1995) ........................................... 1
   A  Improper Detection of DAS CPU EPROM Change .................................................. 1
   B  Does Not Prevent Inclusion of Ineligible Channels in Event Trigger ....................... 2

Exceptions for PASSCAL Software Version 2.58 (March 24, 1994) ................................. 3
   A  Improper Detection of DAS CPU EPROM Change .................................................. 3
   B  Improper Operations Using Some 3.5" DAT Drives with HP Firmware ....................... 3
   C  Does Not Prevent Inclusion of Ineligible Channels in Event Trigger ....................... 4
   D  Data Corruption When RAM Cleared While Recording an Event ................................ 4

Exceptions for PASSCAL Software Version 2.57 (January 5, 1993) ................................. 5
   A  Improper Detection of DAS CPU EPROM Change .................................................. 5
   B  Improper Operations Using Some 3.5" DAT Drives with HP Firmware ....................... 5
   C  Does Not Prevent Inclusion of Ineligible Channels in Event Trigger ....................... 6
   D  Data Corruption When RAM Cleared While Recording an Event ................................ 6
   E  Possible Jerking of Internal Time When External Clock Not Locked ......................... 6

Exceptions for PASSCAL Software Version 2.56 (November 9, 1993) ............................... 7
   A  Improper Detection of DAS CPU EPROM Change .................................................. 7
   B  Improper Operations Using Some 3.5" DAT Drives with HP Firmware ....................... 7
   C  Does Not Prevent Inclusion of Ineligible Channels in Event Trigger ....................... 8
   D  Data Corruption When RAM Cleared While Recording an Event ................................ 8

Exceptions for PASSCAL Software Version 2.55 (November 2, 1993) ............................... 9
   A  Improper Detection of DAS CPU EPROM Change .................................................. 9
   B  Improper Operations Using Some 3.5" DAT Drives with HP Firmware ....................... 10
   C  Does Not Prevent Inclusion of Ineligible Channels in Event Trigger ....................... 10
   D  Problem Combining Time Trigger with Pulse Time Set Feature ................................ 10
   E  Improper Handling of Transfer from SCSI Disk .................................................... 10
   F  Inconsistent Handling of Device Ready Indicator .................................................. 11
   G  Data Corruption When RAM Cleared While Recording an Event ................................ 11
   H  Mishandling of Differential Data Compression ..................................................... 11
Exceptions for PASSCAL Software Version 2.53 (August 27, 1993) ........................................... 3
A Improper Operations Using 5.25" DAT Drives ................................................................. 14
B Improper Operations Using Some 3.5" DAT Drives with HP Firmware ...................... 14
C Accuracy of Battery Voltage and Temperature Readings Could Be Improved .. 14
D Can Not Cut Power to Second RT280 Board ................................................................. 14
E Insufficient Sensitivity When Using an Event Trigger for 24-bit Data ......................... 14
F Improper Function of the Data Compression Algorithm ............................................. 15
G The DAS Does Not Support Serial Communications Using 7 Data Bits .............. 15
H Obscure State-of-Health Messages When Recording Disk is Full ......................... 15
I Failure to Respond Immediately to Command to Cancel an XModem Transfer .. 15
J Does Not Prevent Inclusion of Ineligible Channels in Event Trigger ..................... 15
K Inaccurate SOH Messages Caused by Not Using an RT344 Power Supply Card .... 16
L Improper Handling of Event Triggers with 0 Length .................................................. 16
M Problem Using a Sun Workstation to Recover Data from Full Disk ....................... 16
N Failure of DAS SCSI Operations When Reading Disk Drive Format Block ........... 16
O Improper Transfer of Data from Disk to Tape ............................................................... 16
P Lack of 1 Watt/0.1 Watt Signal (Radio Support) ......................................................... 17
Q Incorrect Record of Bit Weights for 24-bit Channels in EH and ET ...................... 17
R Periodic System Reset Caused by Address Exception ............................................. 17
S Inability to Detect and Use Pseudo-static RAM in all Units ..................................... 17
T Discontinuity of Time Tagging at Immediate Start of Continuous Trigger .......... 17
U Problem Combining Time Trigger with Pulse Time Set Feature .......................... 17
Exceptions for PASSCAL Software Version 2.72 (June 30, 1995)

Refraction Technology recently released PASSCAL DAS software version 2.59 for REFTEK Data Acquisition Systems. PASSCAL software version 2.59 is currently the official version of released PASSCAL DAS software, and Refraction Technology installs this software in most DAS units. If you wish to use a previous version of PASSCAL code, please contact Refraction Technology, Inc. Our address and phone numbers are shown inside the cover page of this document.

We have noted the following exceptions for PASSCAL version 2.72 since its release:

- Improper detection of DAS CPU EPROM change
- Does not prevent inclusion of ineligible channels in event trigger

Please be assured that Refraction Technology is presently working to resolve these concerns. If you have any questions about these or any other technical issues, please call us and ask to speak with a member of the Technical Support Team.

A Improper Detection of DAS CPU EPROM Change

Sometimes, after you have upgraded the CPU erasable, programmable read-only memory chips (EPROMs) in your unit, the DAS does not properly detect the change upon system power-up. To ensure proper detection of the EPROM change, perform the following procedure:

- Initialize the DAS before changing the EPROMs (Press F4, 9 from FSC).
- Replace the EPROM chips; see the “User's Guide: Performing Field Upgrades for 72A Series Data Acquisition Systems” for assistance.
- Initialize the DAS again after changing the EPROMs.
B  Does Not Prevent Inclusion of Ineligible Channels in Event Trigger

When you select the parameters for an event trigger, the PASSCAL DAS software allows you to choose as a trigger channel a channel that you have not included as a channel of the data stream. Inclusion of ineligible channels may prevent the DAS from terminating the event after activating it. This problem exists with all releases of REFTek PASSCAL DAS software.

When building parameter sets, do not include as trigger channels any channels that are not already included in the data stream.
Exceptions for PASSCAL Software Version 2.58 (March 24, 1994)

Refraction Technology recently released PASSCAL DAS software version 2.58 for REFTEK Data Acquisition Systems. PASSCAL software version 2.58 is currently the official version of released PASSCAL DAS software, and Refraction Technology installs this software in most DAS units. If you wish to use a previous version of PASSCAL code, please contact Refraction Technology, Inc. Our address and phone numbers are shown inside the cover page of this document.

We have noted the following exceptions for PASSCAL version 2.58 since its release:

- Improper detection of DAS CPU EPROM change
- Improper operations using some 3.5" DAT drives with HP firmware
- Does not prevent inclusion of ineligible channels in event trigger
- Data corruption when RAM cleared while recording an event

Please be assured that Refraction Technology is presently working to resolve these concerns. If you have any questions about these or any other technical issues, please call us and ask to speak with a member of the Technical Support Team.

A Improper Detection of DAS CPU EPROM Change

Sometimes, after you have upgraded the CPU erasable, programmable read-only memory chips (EPROMs) in your unit, the DAS does not properly detect the change upon system power-up. To ensure proper detection of the EPROM change, perform the following procedure:

- Initialize the DAS before changing the EPROMs (Press F4, 9 from FSC).
- Replace the EPROM chips; see the "REFTEK User's Guide: Performing Field Upgrades for 72A Series Data Acquisition Systems" for assistance.
- Initialize the DAS again after changing the EPROMs.

B Improper Operations Using Some 3.5" DAT Drives with HP Firmware

The DAS will not operate properly with 3.5" DAT drives which contain Hewlett Packard firmware version 10.0 or higher. With version 10.0, Hewlett Packard made extensive changes that interfere with the method in which REFTEK uses the drives. This problem exists with all releases of REFTEK PASSCAL DAS software.

Refraction Technology ships only DAT drives with compatible firmware installed.

If you have recently purchased your own 3.5" DAT drive from Hewlett Packard and have trouble operating the drive with a REFTEK DAS, contact either Hewlett Packard or the vendor supplying the DAT drive to learn how to load the DAT drive with firmware earlier than version 10.0.
C  Does Not Prevent Inclusion of Ineligible Channels in Event Trigger

When you select the parameters for an event trigger, the PASSCAL DAS software allows you to choose as a trigger channel a channel that you have not included as a channel of the data stream. Inclusion of ineligible channels may prevent the DAS from terminating the event after activating it. This problem exists with all releases of RefTek PASSCAL DAS software.

When building parameter sets, do not include as trigger channels any channels that are not already included in the data stream.

D  Data Corruption When RAM Cleared While Recording an Event

Clearing RAM while the DAS is recording data for an event in progress causes the following adverse effects:

- Corrupts the information the DAS requires to properly manage RAM
- May cause undesired system resets
- May prevent acquisition even with RAM still available.

For DAS units with data streams that use a continuous trigger, the DAS is always recording data for an event in progress; for such units, you must manually stop data acquisition before clearing RAM.
Exceptions for PASSCAL Software Version 2.57 (January 5, 1993)

Refraction Technology recently released PASSCAL DAS software version 2.57 for all REFTek Data Acquisition Systems. PASSCAL software version 2.57 is currently the official version of released PASSCAL DAS software, and Refraction Technology installs this software in most DAS units. If you wish to use a previous version of PASSCAL code, please contact Refraction Technology, Inc. Our address and phone numbers are shown inside the cover page of this document.

We have noted the following exceptions for PASSCAL version 2.57 since its release:

- Improper detection of DAS CPU EPROM change
- Improper operations using some 3.5" DAT drives with HP firmware
- Does not prevent inclusion of ineligible channels in event trigger
- Data corruption when RAM cleared while recording an event
- Possible jerking of internal time when external clock not locked

Please be assured that Refraction Technology is presently working to resolve these concerns. If you have any questions about these or any other technical issues, please call us and ask to speak with a member of the Technical Support Team.

A Improper Detection of DAS CPU EPROM Change

Sometimes, after you have upgraded the CPU erasable, programmable read-only memory chips (EPROMs) in your unit, the DAS does not properly detect the change upon system power-up. To ensure proper detection of the EPROM change, perform the following procedure:

- Initialize the DAS before changing the EPROMs (Press F4, 9 from FSC).
- Replace the EPROM chips; see the “User's Guide: Performing Field Upgrades for 72A Series Data Acquisition Systems” for assistance.
- Initialize the DAS again after changing the EPROMs.

B Improper Operations Using Some 3.5" DAT Drives with HP Firmware

The DAS will not operate properly with 3.5" DAT drives which contain Hewlett Packard firmware version 10.0 or higher. With version 10.0, Hewlett Packard made extensive changes that interfere with the method in which REFTek uses the drives. This problem exists with all releases of REFTek PASSCAL DAS software.

Refraction Technology ships only DAT drives with compatible firmware installed.

If you have recently purchased your own 3.5" DAT drive from Hewlett Packard and have trouble operating the drive with a REFTek DAS, contact either Hewlett Packard or the vendor supplying the DAT drive to learn how to load the DAT drive with firmware earlier than version 10.0.
C  Does Not Prevent Inclusion of Ineligible Channels in Event Trigger

When you select the parameters for an event trigger, the PASSCAL DAS software allows you to choose as a trigger channel a channel that you have not included as a channel of the data stream. Inclusion of ineligible channels may prevent the DAS from terminating the event after activating it. This problem exists with all releases of REFTek PASSCAL DAS software.

When building parameter sets, do not include as trigger channels any channels that are not already included in the data stream.

D  Data Corruption When RAM Cleared While Recording an Event

Clearing RAM while the DAS is recording data for an event in progress causes the following adverse effects:

- Corrupts the information the DAS requires to properly manage RAM
- May cause undesired system resets
- May prevent acquisition even with RAM still available.

For DAS units with data streams that use a continuous trigger, the DAS is always recording data for an event in progress; for such units, you must manually stop data acquisition before clearing RAM.

E  Possible Jerking of Internal Time When External Clock Not Locked

Multiple, spurious pulses on the circuit for the external clock 1 Hz can cause the DAS to forcibly alter (jerk) its internal time, even when the external clock is not locked or when the DAS is not using an external clock.
Refraction Technology recently released PASSCAL DAS software version V.PI for all REF TEK Data Acquisition Systems. PASSCAL software version 2.56 is currently the official version of released PASSCAL DAS software, and Refraction Technology installs this software in most DAS units. If you wish to use a previous version of PASSCAL code, please contact Refraction Technology, Inc. Our address and phone numbers are presented on the inside cover of this document.

We have noted the following exceptions for PASSCAL version 2.56 since its release:

- Improper detection of DAS CPU EPROM change
- Improper operations using some 3.5" DAT drives with HP firmware
- Does not prevent inclusion of ineligible channels in event trigger
- Data corruption when RAM cleared while recording an event

Please be assured that Refraction Technology is presently working to resolve these concerns. If you have any questions about these or any other technical issues, please call us and ask to speak with a member of the Technical Support Team.

A Improper Detection of DAS CPU EPROM Change

Sometimes, after you have upgraded the CPU erasable, programmable read-only memory chips (EPROMs) in your unit, the DAS does not properly detect the change upon system power-up. To ensure proper detection of the EPROM change, perform the following procedure:

- Initialize the DAS before changing the EPROMs (Press F4, 9 from FSC).
- Replace the EPROM chips; see the REF TEK User's Guide: Performing Field Upgrades for 72A Series Data Acquisition Systems for assistance.
- Initialize the DAS again after changing the EPROMs.

B Improper Operations Using Some 3.5" DAT Drives with HP Firmware

The DAS will not operate properly with 3.5" DAT drives which contain Hewlett Packard firmware version 10.0 or higher. With version 10.0, Hewlett Packard made extensive changes that interfere with the method in which REF TEK uses the drives. This problem exists with all releases of REF TEK PASSCAL DAS software.

Refraction Technology ships only DAT drives with compatible firmware installed.

If you have recently purchased your own 3.5" DAT drive from Hewlett Packard and have trouble operating the drive with a REF TEK DAS, contact either Hewlett Packard or the vendor supplying the DAT drive to learn how to load the DAT drive with firmware earlier than version 10.0.
C Does Not Prevent Inclusion of Ineligible Channels in Event Trigger

When you select the parameters for an event trigger, the PASSCAL DAS software allows you to choose as a trigger channel a channel that you have not included as a channel of the data stream. Inclusion of ineligible channels may prevent the DAS from terminating the event after activating it. This problem exists with all releases of REF TEK PASSCAL DAS software.

When building parameter sets, do not include as trigger channels any channels that are not already included in the data stream.

D Data Corruption When RAM Cleared While Recording an Event

Clearing RAM while the DAS is recording data for an event in progress causes the following adverse effects:

- Corrupts the information the DAS requires to properly manage RAM
- May cause undesired system resets
- May prevent acquisition even with RAM still available.

For DAS units with data streams that use a continuous trigger, the DAS is always recording data for an event in progress; for such units, you must manually stop data acquisition before clearing RAM.
Exceptions for PASSCAL Software Version 2.55 (November 2, 1993)

Refraction Technology recently released PASSCAL DAS software version V.PI for all REF TEK Data Acquisition Systems. PASSCAL software version 2.55 is currently the official version of released PASSCAL DAS software, and Refraction Technology installs this software in most DAS units. If you wish to use a previous version of PASSCAL code, please contact Refraction Technology, Inc. Our address and phone numbers are presented on the inside cover of this document.

We have noted the following exceptions for PASSCAL version 2.55 since its release:

- Improper detection of DAS CPU EPROM change
- Improper operations using some 3.5” DAT drives with HP firmware
- Does not prevent inclusion of ineligible channels in event trigger
- Problem combining time trigger with pulse time set feature
- Improper handling of transfer from SCSI disk
- Inconsistent handling of device ready indicator
- Data corruption when RAM cleared while recording an event
- Mishandling of differential data compression

Please be assured that Refraction Technology is presently working to resolve these concerns. If you have any questions about these or any other technical issues, please call us and ask to speak with a member of the Technical Support Team.

A Improper Detection of DAS CPU EPROM Change

Sometimes, after you have upgraded the CPU erasable, programmable read-only memory chips (EPROMs) in your unit, the DAS does not properly detect the change upon system power-up. To ensure proper detection of the EPROM change, perform the following procedure:

- Initialize the DAS before changing the EPROMs (Press F4, 9 from FSC).
- Replace the EPROM chips; see the REF TEK User’s Guide: Performing Field Upgrades for 72A Series Data Acquisition Systems for assistance.
- Initialize the DAS again after changing the EPROMs.
B Improper Operations Using Some 3.5" DAT Drives with HP Firmware

The DAS will not operate properly with 3.5" DAT drives which contain Hewlett Packard firmware version 10.0 or higher. With version 10.0, Hewlett Packard made extensive changes that interfere with the method in which REF TEK uses the drives. This problem exists with all releases of REF TEK PASSCAL DAS software.

Refraction Technology ships only DAT drives with compatible firmware installed.

If you have recently purchased your own 3.5" DAT drive from Hewlett Packard and have trouble operating the drive with a REF TEK DAS, contact either Hewlett Packard or the vendor supplying the DAT drive to learn how to load the DAT drive with firmware earlier than version 10.0.

C Does Not Prevent Inclusion of Ineligible Channels in Event Trigger

When you select the parameters for an event trigger, the PASSCAL DAS software allows you to choose as a trigger channel a channel that you have not included as a channel of the data stream. Inclusion of ineligible channels may prevent the DAS from terminating the event after activating it. This problem exists with all releases of REF TEK PASSCAL DAS software.

When building parameter sets, do not include as trigger channels any channels that are not already included in the data stream.

D Problem Combining Time Trigger with Pulse Time Set Feature

When you use both a time trigger and the pulse time set feature, the DAS does not always calculate the initial time trigger as expected. To minimize the chances that the pulse time set will adversely affect the time trigger calculations, perform the following:

- Use the pulse time feature to set the DAS unit's internal time
- Implement parameters
- Use the pulse time feature again.

E Improper Handling of Transfer from SCSI Disk

When the DAS copies from disk to disk and the target disk has an invalid write pointer, the DAS unit cancels the transfer without declaring an error and does not close the SCSI driver. The open SCSI driver causes the next SCSI command to fail as well. To avoid this problem, format the target device.

When using the REF TEK SCSIfmt utility, perform one of the following actions to set the pointer for the SCSI recording media to the correct start block:

- Use the SCSIfmt utility without including any control variables (switches); the utility prompts you for a value for each switch it requires before it continues.
- Use the SCSIfmt utility and include the /r2 switch.
F  Inconsistent Handling of Device Ready Indicator

The DAS does not handle its display indicator for an active SCSI device the same way for SCSI tapes and SCSI disks. The DAS Status screen displays a minus (-) sign next to "SCI" in the Recording Mode field to indicate that an error condition has caused the DAS to disable the automatic SCSI transfer.

When you see this indicator, you can reset the indicator for a SCSI tape by performing a SCSILoad. With current PASSCAL code, however, you cannot use SCSILoad to reset the indicator for a SCSI disk. To reset the indicator for a disk, you must reformat the SCSI disk or power cycle the DAS while it is in SCSI recording mode (with acquisition turned off).

G  Data Corruption When RAM Cleared While Recording an Event

Clearing RAM while the DAS is recording data for an event in progress causes the following adverse effects:

- Corrupts the information the DAS requires to properly manage RAM
- May cause undesired system resets
- May prevent acquisition even with RAM still available.

For DAS units with data streams that use a continuous trigger, the DAS is always recording data for an event in progress; for such units, you must manually stop data acquisition before clearing RAM.

H  Mishandling of Differential Data Compression

Errors in the differential data compression algorithm occasionally cause the DAS to fail to include the last data (DT) block and the event trailer (ET) block in an event compressed by the differential data compression algorithm. Do not use the data compression feature; if you must, contact Refraction Technology for assistance.
This page intentionally left blank.
Exceptions for PASSCAL Software Version 2.53 (August 27, 1993)

Refraction Technology recently released PASSCAL DAS software version 2.53 for all REF TEK Data Acquisition Systems. PASSCAL software version 2.53 is currently the official version of released PASSCAL DAS software, and Refraction Technology installs this software in all DAS units. If you wish to use a previous version of PASSCAL code, please contact Refraction Technology, Inc. Our address and phone numbers are presented on the inside cover of this document.

We have noted the following exceptions for PASSCAL version 2.53 since its release:

- Improper operations using 5.25” DAT drives
- Improper operations using some 3.5” DAT drives with HP firmware
- Accuracy of battery voltage and temperature readings could be improved
- Can not cut power to second RT280 board
- Insufficient sensitivity when using an event trigger for 24-bit data
- Improper function of the data compression algorithm
- The DAS does not support serial communications using 7 data bits
- Obscure State-of-Health messages when recording disk is full
- Failure to respond immediately to command to cancel an XModem transfer
- Does not prevent inclusion of ineligible channels in event trigger
- Inaccurate SOH messages caused by not using an RT344 power supply card
- Improper handling of event triggers with 0 length
- Problem using a Sun workstation to recover data from full disk
- Failure of DAS SCSI operations when reading disk drive format block
- Improper transfer of data from disk to tape
- Lack of 1 watt/.01 watt signal (radio support)
- Incorrect record of bit weights for 24-bit channels in EH/ET
- Periodic system reset caused by address exception
- Inability to detect and use pseudo-static RAM in all units
- Discontinuity of time tagging at immediate start of continuous trigger
- Problem combining time trigger with pulse time set feature

Please be assured that Refraction Technology is presently working to resolve these concerns. If you have any questions about these or any other technical issues, please call us and ask to speak with a member of the Technical Support Team.
A  Improper Operations Using 5.25" DAT Drives

The DAS will not operate properly when you issue a Format Tape command to any 5.25" DAT drive.

If you need to use a 5.25" DAT drive, use PASSCAL DAS software version 2.48.

B  Improper Operations Using Some 3.5" DAT Drives with HP Firmware

The DAS will not operate properly with 3.5" DAT drives which contain Hewlett Packard firmware version 10.0 or higher. With version 10.0, Hewlett Packard made extensive changes that interfere with the method in which REF TEK uses the drives. This problem exists with all releases of REF TEK PASSCAL DAS software.

Refraction Technology ships only DAT drives with compatible firmware installed.

If you have recently purchased your own 3.5" DAT drive from Hewlett Packard and have trouble operating the drive with a REF TEK DAS, contact either Hewlett Packard or the vendor supplying the DAT drive to learn how to downgrade the DAT drive firmware to a level below version 10.0.

C  Accuracy of Battery Voltage and Temperature Readings Could Be Improved

The readings for battery voltage and internal DAS temperature (measured by a circuit located on the RT344 card) are not as accurate as we would like. This problem has existed since the first inclusion of the RT344 card, which required the use of PASSCAL DAS software 2.50 or a later version.

D  Can Not Cut Power to Second RT280 Board

You can not cut the power to the second RT280 card in a REF TEK 72A-02 when using PASSCAL DAS code versions 2.50 through 2.53.

If you need this feature, use PASSCAL DAS code version 2.48.

E  Insufficient Sensitivity When Using an Event Trigger for 24-bit Data

The event trigger algorithm, which has remained the same throughout all previous versions of REF TEK software, is not sensitive enough when using 24-bit data. Because the event trigger algorithm operates only on the upper 16 bits of 24-bit data, data streams using an event trigger require an unacceptably high signal level to activate an event, even at low trigger ratio settings. This problem affects all 24-bit REF TEK DAS units (all 72A-07, 72A-07/DAT, and 72A-08 units). Refraction Technology first introduced 24-bit support in PASSCAL DAS software version 2.48E.
F **Improper Function of the Data Compression Algorithm**

The data compression algorithm, introduced in PASSCAL DAS code version 2.50, does not work properly.

Do not attempt to enable data compression.

G **The DAS Does Not Support Serial Communications Using 7 Data Bits**

Although PASSCAL DAS code allows you to select either 7 or 8 data bits for serial communications, serial communication using 7 data bits is inadequate for the REF TEK system. This condition exists with PASSCAL DAS software version 2.53 and earlier.

Do not attempt to set any DAS serial port to 7 data bits.

H **Obscure State-of-Health Messages When Recording Disk is Full**

When the DAS records data to a disk drive and fills the disk media to capacity, the DAS logs messages to the State-of-Health log that do not always indicate that the disk is full. This problem exists with all REF TEK releases of PASSCAL DAS software.

I **Failure to Respond Immediately to Command to Cancel an XModem Transfer**

The DAS does not respond immediately to the command to cancel an XModem transfer (the CAN command is 24 in ASCII). This problem exists with all REF TEK releases of PASSCAL DAS software.

Wait a couple of minutes for a time-out to occur.

J **Does Not Prevent Inclusion of Ineligible Channels in Event Trigger**

When you select the parameters for an event trigger, the PASSCAL DAS software allows you to choose as a trigger channel a channel that you have not included as a channel of the data stream. Inclusion of ineligible channels may prevent the DAS from terminating the event after activating it. This problem exists with all releases of REF TEK PASSCAL DAS software.

When building parameter sets, do not include as trigger channels any channels that are not already included in the data stream.
K  Inaccurate SOH Messages Caused by Not Using an RT344 Power Supply Card

Some older DAS units use a power supply board other than the RT344 (such as the RT296). When such a DAS attempts to read the nonexistent battery voltage and temperature registers during high-speed bus activities (such as SCSI transfers), wide variances in the values read cause the DAS to enter multiple messages regarding voltage and temperature changes into the State-of-Health log. This problem exists with REF TEK releases of PASSCAL DAS software versions 2.50 through 2.53.

L  Improper Handling of Event Triggers with 0 Length

When the DAS activates an event trigger with a record length of 0 seconds, the DAS activates and terminates multiple triggers while the trigger criteria are met, rather than activating the trigger once when the criteria are first met and deactivating the trigger only when the de-trigger criteria are met.

To achieve the best results, select a positive integer value as the recording length parameter for all event triggers.

M  Problem Using a Sun Workstation to Recover Data from Full Disk

The DAS records data to every sector of a SCSI recording disk. When you attempt to read the data on the disk from a Sun workstation, the Sun OS seems to restrict access to some of the sectors on the disk. The restricted sectors correspond to the last few cylinders on the drive.

To avoid this problem, service your recording disk before it is completely filled. You can also use REF TEK utilities to recover data from a full disk. For assistance, see the REF TEK Software Operations Manual for Utility Programs.

N  Failure of DAS SCSI Operations When Reading Disk Drive Format Block

When an error occurs while the DAS attempts to read the format block of a particular type of disk drive, the DAS unit’s SCSI operations fail and appear to hang. The DAS takes an extremely long time (about 30 minutes) to time out, usually resulting in the DAS automatically terminating acquisition.

To cause the DAS to resume acquisition, attempt a SCSI Load command. If the SCSI Load is successful, you can send a Start Acquisition command. If SCSI load is not successful, you must reformat the drive before it can be used. Although you can not use the DAS to recover the data, you can use the REF TEK utilities.

O  Improper Transfer of Data from Disk to Tape

With some SCSI disk drives, a Disk-to-Tape copy command does not terminate. The DAS does not copy the last few sectors from the disk to the tape.
P  Lack of 1 Watt/0.1 Watt Signal (Radio Support)

As stated in the DAS CPU release notes for PASSCAL version 2.50 (in the REF TEK Release Notes Manual for PASSCAL DAS CPU Code), the DAS uses what was previously the 1 watt/0.1 watt selection line as a packet framing line. You should not use any radio that requires 1 watt/0.1 watt support with any DAS unit that uses DAS software from version 2.50 to the present.

The 1 watt/0.1 watt signal will be reinstated in a future release of the standard PASSCAL DAS CPU code; reinstating the signal will also require hardware changes in REF TEK communications and modem boards.

Q  Incorrect Record of Bit Weights for 24-bit Channels in EH and ET

The bit weights recorded in the event header (EH) and event trailer (ET) blocks of an event in a 72A-08 are incorrect for 24-bit channels. They are correct for a 72A-07.

R  Periodic System Reset Caused by Address Exception

The periodic occurrence of an address exception while the DAS is recording serially from RAM to storage causes the DAS to reset.

S  Inability to Detect and Use Pseudo-static RAM in all Units

The current DAS control software does not allow the use of pseudo-static RAM in all 72A series DAS units. Currently, software handles the use of pseudo-static RAM only in the 72A-07/DAT and custom 72A-07/DAT units.

T  Discontinuity of Time Tagging at Immediate Start of Continuous Trigger

When the DAS uses certain versions of software, time tag discontinuities occur in the first few packets of a continuous trigger immediately after the DAS starts acquisition. The versions of DAS CPU code that exhibit time tag problems are 2.51J, 2.51H, 2.51HD, 2.53J, 2.53H, and 2.53HD.

U  Problem Combining Time Trigger with Pulse Time Set Feature

When you use both a time trigger and the pulse time set feature, the DAS does not always calculate the initial time trigger as expected.

To minimize the chances that the pulse time set will adversely affect the time trigger calculations, set the DAS unit's internal time to be as close to real time as possible (using manual entry, pulse time set, or other means) before you implement parameters.
This page intentionally left blank.